

THE SOUTHERN PLANTER.

Devoted to Agriculture, Horticulture, and the Household Arts.

Agriculture is the nursing mother of the Arts.—
Xenophon.

Tillage and Pasturage are the two breasts of the State.—*Sully.*

FRANK: G. RUFFIN, EDITOR AND PROPRIETOR.

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For the Southern Planter.

ON THE HORSE.

CONTINUED FROM THE LAST NUMBER.

PART II.

Blood or Race Horses—Passion of the English for them—Their peculiar merits and defects—Evils arising from too large an admixture of their blood for the varieties of the useful horse, such as the saddle-horse, hunter, charger, coach-horse—Importance of size—The best system of breeding to supply that is a cross between the Cleveland Bay and the thorough-bred—Inferiority of the Arab to the English Race-horse—American Trotters—Morgans—Black Hawks—Union of qualities in the Cleveland Bay.

The English have an undiminished passion for the turf, and a consideration for the Blood-horse as a being of rank. They look upon him as the nobleman of the "*population chevaline*." They give him credit for a degree of spiritual courage; and Englishmen, even in the humblest ranks of life, will tell you there's nothing like blood—blood will tell—one can call upon blood. The Crown, even in the person of a Queen, has reestablished the breeding stud at Hampton Court, and with such success that the Royal yearlings, at the last sale, averaged the extraordinary sum of four hundred and forty-one guineas apiece—the prices varying from twenty-five to a thousand guineas.* The principal breeding stallion at Hampton court is the superb Orlando, whom I made it a point to visit. As a consequence of this taste for thorough-bred horses, pervading majesty, nobility, gentry, and commonalty, they have greatly multiplied. During the

past season, eighteen hundred and forty-one race-horses started. The blood brood-mares are not more than five times as numerous as the breeding blood stallions. At New Market alone, there were last month ninety-two yearlings in training. The entries for the next Derby are a hundred and ninety-three, but forty of the colts and fillies entered are already *hors de combat*. The returns so far show, for 1854, nine hundred and seventy-three blood foals of high lineage; but out of that number not more than a dozen are likely to win places in the first and second ranks of fame. They will run in one year for an amount exceeding a million and a quarter of dollars, exclusive of "added money."

There are a few men in England who ride thorough-bred horses, as Hunters, Hackers, and Chargers, and drive them, and in short use them for all purposes, except those to which the horses in the class of walking draft, before mentioned, and the dwarf races are exclusively adapted; but it is generally objected to them that they seldom have substance of body or bone enough to stand the protracted chase, or to endure steady work, if they have to carry or draw any considerable weight. They are usually too narrow, flat-sided, and low before, want suppleness in the knees, and carry their feet too near the ground, (as "*daisy-cutters*"—" *rasant le tapis* ") to be pleasant under the saddle, particularly in a trot; and they have often too great a development of the propelling hind parts for beauty, in proportion at least to the forehead, and an excessive length of trunk, which is much coveted for extent of stride as one of the elements of speed.* These objections apply the more strongly to horses for quick draft, where generally greater robustness, size, and show in action are required than under the saddle. Lord Westminster now keeps

* The average price of all the blood yearlings sold in England, in 1854, was about one hundred and forty guineas; and of the brood mares about a hundred guineas apiece.

* The stride of the renowned Boston at his bruising pace was twenty-six feet.

besides famous old Touchstone, a young stallion (formerly run by Lord Palmerston) called Buckthorn, with whom, the head groom told me, the racing men found fault on account of the shortness of his back, which, though a great source of strength and a favorite point in "useful" horses, does not meet the requirements of the turf.

Blood horses have had powerful and effective advocates in the modern writers Nimrod, Harry Hicover, and Cecil, who contend that they are the proper race to communicate the greater speed demanded at the present day, by the improved roads, the chase, the evolutions of armies, and the hurry of the world. This, together with the importance attached to fixity of type, has produced a further increase of their number, and very generally caused them to be resorted to as the progenitors of Hacks (I mean gentlemen's saddle horses), Hunters, Chargers (first class horses for military officers and cavalry), and even carriage horses of the lighter class, by part bred mares. The aim of the breeders is to produce hunters, as being the highest priced animals, averaging at Melton Mowbray £200, and fetching occasionally £1100; and if they fail in that, by reason of want of substance, to have a hack. Should the progeny be very strong, but destitute of the qualities of good hunters, they would probably answer in one of the other services mentioned. Between thorough-breeds the attempt is always to breed racers; but in the event of want of speed the colts become either hacks, or hunters in a light country if they have strength enough. About three out of every seven of the blood horses actually put in training as yearlings, in England, are permanently withdrawn from the turf, from want of merit and from constitutional inability to endure the severity of the probationary discipline at that tender age; and, at a later period, many of them, the males especially, are distributed among the various useful services to which they are respectively best adapted. In Yorkshire a farmer is, by an old proverb, commiserated if he has "a lot of ugly daughters and blood fillies," because they both are apt to remain on his hands a long time, sources of expense. The reason of this, in reference to the blood fillies, is that they are rarely resorted to to breed "useful" horses from, and cannot earn their living by ordinary work; nor will they often command remunerative prices, unless sired by "fashionable" horses as they are termed, standing at £30, £40, and £50, and unless they are in the possession of the rich, who can afford to force them by feeding and housing and encounter the great cares, uncer-

tainties, and risks of rearing them properly, and can train them and enter them for great races, and run them successfully; for performance on the turf is almost the only received and acknowledged test of the merit of a *blood* horse.

With a continuation of the state of things in which the greater number of the useful and stylish horses having activity are reproduced by thorough-bred stallions, out of mares of higher and higher breeding, losing their stamina every successive generation, it is easy to perceive that the steady and progressive approximation to the characteristics of the race-horse (a perfect animal for its special purpose), is depriving those horses of England, intended for useful purposes, of their strength and size. The geometrical progression, obtained by crossing an ameliorating race on a *common* and wholly distinct one, always using pure-bred males of the ameliorating race with the female progeny of each successive cross, is such that an animal of the tenth generation would have of the blood of the *common* race but a remnant of one out of a thousand and twenty-four parts; and in the twentieth generation there would be very much less than one-millionth part of the common blood left. The fractional series is: $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{8}$ $\frac{1}{16}$ $\frac{1}{32}$ $\frac{1}{64}$ $\frac{1}{128}$ $\frac{1}{256}$ $\frac{1}{512}$ $\frac{1}{1024}$, &c.* An eminent member of the veterinarian faculty, an Englishman by birth, but now a resident of New York, soon after his return from a late visit to his native country, observed to me that he thought there was a marked want of bone, however dense it might be, in the majority of the horses now seen in Hyde Park. This subject of the diminished power of the classes of useful horses has arrested the attention of Spooner, the author of several distinguished veterinarian works, and he boldly and stoutly recommends, as a remedy, recourse to "half-bred" stallions. I saw no part-bred stallions in England; some of the Cleveland Bays happily supplying the desideratum which Mr. Spooner would seek in half-bred stallions, with the additional advantage of fixity of type. These Yorkshire is fortunate in possessing as a distinct breed, which is the reason, perhaps, why this county furnishes almost all the very strong horses in England with beauty and action. Hence it is that the British Government have to give to a Yorkshire man the contract for mounting the crack cavalry regiments; and the East India Company employ the same man, Jonathan Shaw, to supply their studs with Cleveland stallions, to strengthen and improve the indig-

*Zootechnie Générale—M. Villeroy.

enous races of Asia, and especially to qualify them for cavalry service.

Every now and then one sees a thoroughbred horse with a relatively high fore-hand, good crest, ample as well as deep chest, shortish legs, and a body well ribbed home and not too long, with general rotundity of form and good action; but in that case he is not apt to be of great speed on the turf. Such a horse the English ladies prefer to ride. After a long protracted search among blood horses, who are by no means all beauties, Wyatt found in Recovery one he deemed a fit model for the Wellington equestrian statue. *The Duke's* favorite charger was a thoroughbred. A perfect Park Hack for a gentleman is usually of the same general style as a lady's riding horse of modern days, Palfreys being extinct, but of a rather larger size, which is commonly attained by a slight admixture of races. A Hunter is a large Hack, with less symmetry than a Hack often, provided he has the qualities sought, and from his size and therefore strength is *fully up* to the weight he has to carry on a long as well as a fast run. A Charger, in reference to natural gifts, is in fact a hunter. I think carriage horses, certainly Lord Foley's dark bays, approaching light browns, (the most celebrated in England, for one of which I was told he had paid or refused £600) may well be defined to be large, or as Youatt says, "over-sized," Hunters. Most of these varieties of horses in England are by blood stallions, out of part-bred mares, as I have before observed, except a majority of the horses for the larger carriages; and *they* are more generally new Clevelands on both sides, and, of course, have an infusion, more or less remote, of blood. This, with a view to uniformity of results in breeding, it is expedient should not be so recent in the stallions as materially to affect the fixity of their type,—keeping in mind the theory of Malingie Nouel and Huzard fils,* that generally the parent of the longer established race, or of the purer descent, exercises a predominant influence on the character of the offspring.

Mr. Dickenson† and Mr. Gray, the two great "job-masters"‡ of London, told me that they bought all their horses in Yorkshire, "raw," at two and three years old, at from £80

*Des Haras Domestiques.

† Mentioned by Caird as a celebrated grower of Italian rye grass.

‡ "Job-masters" let carriage horses to hire to persons who wish to avoid the risks and trouble incident to ownership. The Queen's mother "jobs" her horses.

to £110, kept them on a farm until fit for use, and then brought them to London, and educated them in their brakes, for which they have accomplished drivers, with no other occupation. Mr. Gray spoke of William Burton's horses, and said "they are my sort."

The forty-five Hunters of Lord Fitzhardinge, at Berkeley Castle, are exceedingly strong and heavy-limbed horses, from fifteen hands three inches to sixteen hands high; and I understood from his huntsman that thoroughbred and very high bred horses could not live through a hard day's run, in that heavy country. Nevertheless all foals from his strongest Hunter mares, no longer used in the field, are by thoroughbred stallions. A lighter style of Hunter is preferred at Melton Mowbray—the metropolis of the fox-hunting world, as it is termed—in Leicestershire, where the lands are mostly in old grass. Some of the Hunters there, for light weights, are doubtless thoroughbred. In Hunters a fair stride, to gallop, to fence, and to leap well, is required, and for that it is obviously necessary to have tall and elongated, and not squat and punchy, horses. The strength and size of Hunters vary according to the nature of the country, and in proportion to the weight they are to carry; and hence the common phrase, "weight-carriers." The English believe that in well-formed animals, within reasonable limits, size stands to strength as cause and effect, and that if a heavy rider does not bear a just relation to the dimensions of his horse, he can never be well-mounted, and much less appear

"Incorp'd and demi-natur'd
With the brave beast."

Nor do they ever deem a "vehicular establishment" well "got up" if the "cattle" are disproportionately small. In this country, and in the New England states more especially, there is evidence of a growing appreciation of the importance of size in horses for all useful purposes. Even on the turf there is a maxim, as quoted by the accomplished President of the New York Jockey Club, that "a good big horse always beats a good little one."

I expressed to you orally the opinion that the modern Hack—the saddle horse of the nobility and gentry—is fully as high bred as the Hunter, and often higher bred, from a general comparison of the two classes, and the fact that the male parentage of both is for the most part thoroughbred. Nimrod, as well as Harry Hicover, frequently speaks of "thoroughbred Hacks." The Hacks of the Queen for the use of her attendants are strong horses, and are certainly not thoroughbred. As throwing

some light on this subject of the relative breeding of Hacks and Hunters, I shall be able to show you a fine portrait of a most celebrated hunting mare, and also an engraving of a Hack mare and foal from a picture by Herring—the equal in many respects of Landseer and Mlle Rosa Bonheur as a painter of animals,—who had doubtless studied well all the points of a Hack. A very superior animal may sometimes unite good qualities so well that if trained he would serve admirably either as a Hack, a Hunter, a Charger, or even as a harness horse, for the lighter description of vehicles; but I do not mean to intimate that driving him much would not injure him for the saddle. To show you that a horse may be adapted to different uses, even in England where the division of brute labor, according to the qualities of animals, is pushed to such extremes, I send you one of Tattersall's catalogues of weekly sales, where you will find a horse is sometimes advertised as being Hunter, Hack and harness horse all in one. While my Virginia blood does not allow me to feel with those who stigmatize thorough-bred horses as "mere gambling machines," or "grass-hoppers" (*Scutevelles*, as your French friend called them), I cannot run into the other extreme, and believe that they are the best even for the plough and every other service. As it appears to me clear that they do not unite in themselves all the qualities desired in useful horses for quick movement even, the important point is to know the best, if not the only other, race to be resorted to, in order to give them more size and weight; or to counteract their tendency to weediness, delicateness, and want of suitable action, without taking away too much their speed, their wind, their "bloody heads,"—as the common English people say, though all blood horses, have not blood-like heads,—and their general gentlemanly appearance. It is not the easiest matter to maintain the size of the race of blood horses in their pure progeny, even with constant attention and a careful continuance of the best nourishment when young, perhaps from their inclination to revert to the normal proportions of their Asiatic and African ancestry, which are about a hand lower. As extreme crosses cannot answer, and pains must be taken not to run into coarseness while adding strength, in breeding horses for quick and useful service, I see but one race and that most probably a kindred one in all cases—the Cleveland—with which to effect the desired end. To produce horses fit for all useful, and at the same time pleasurable purposes, requiring less power than that of a coach or carriage horse, and yet not the swiftness, on a

burst, of a race horse, I think far more highly of the cross between Cleveland Bays, of the right sort (for that breed has its slugs as well as all others), and thorough-breds, than of any other cross, apportioning the infusion of blood according to the nature of the service sought. The Cleveland bay seems to a certain extent to occupy the middle ground between the blood horse and the agricultural horses of England, having, with much of the strength of the latter, the long neck, the clean limbs, the spare and oblique shoulders, the finest color, the horizontal and uncloven croup, and the quick temperament of the former; and on that account to be alike well adapted to bring up the diminished substance, size and power of our Virginia part bred horses, and to impart more action and muscularity, without too much diminution of weight, to the soft and lymphatic *Conestogas*, for service in trucks, drays, and heavy wagons. In this country we have comparatively but little division of labor among men, and so it is with our horses, although we have at least three times as many of the latter as Great Britain, and a million more than France. The national interest and chief demand are for a horse of general utility, a horse that can move with activity and some quickness, as well as walk with a good load, or be serviceable in the plough. I do not think that I have seen twenty horses in Virginia and New York, that would be deemed large enough to pass muster at a show in England of agricultural horses. The diffusion of blood through nearly the whole mass of our horses was, I remember, remarked by you in a walk in Broadway the day after your last return from France, and it has often been the subject of comment by intelligent Europeans. It would seem that we should aim to breed horses of such size that if they failed occasionally for pleasure vehicles or the saddle, they would be of use in humbler spheres.

Messrs. Henry and Cheslyn Hall at their stud at Dudding Hill, Willesden, about five miles from London, where they keep about a hundred and fifty horses, and in the number half a dozen most distinguished thorough bred stallions, * are breeding some of their thorough bred mares and part bred Hunter mares to their Cleveland stallion, Cleveland Shortlegs, †

* Among the blood stallions at Dudding Hill are Harkaway, the largest horse of the kind in England, The Libel, Epirus and Lothario. The last two only have "knee action."

† See a portrait of this horse in the British Farmer's Magazine for January, 1851. He stands sixteen hands and one inch high, and "possesses immense bone, good action and excellent temper." I heard his present owners paid five or six hundred guineas for him.

to get "weight carrying" Hunters for their own use. These gentlemen have but one Cleveland mare, valued at £200, who does the whole work of their establishment, in the way of drawing food, &c., with great despatch. At one time they intended to breed Hunters from her by the thorough bred Lothario, but they finally concluded to rear Clevelands from her. Mr. E. Marjoribanks, the head of the house of Messrs. Coutts & Co., has a capital foal by Cleveland Shortlegs, out of a favorite high bred Hack mare of his daughter's, and Mr. Tanqueray, the celebrated short horn breeder, shewed me an excellent colt for slower work by the same horse out of a Suffolk mare of his. The practice of gentlemen of such knowledge and experience in breeding deserves the highest consideration. The qualities and points they most covet in large horses for service out of a walk, are action with spirit, short backs, strong loins, shortish and dark legs, black feet and good eyes and heads. Having given you distinguished authorities for the breeding of thorough bred, Hunter, Hack and Suffolk mares to a Cleveland stallion, I must add that the horse whose portrait appears in Stephens "as the very perfection of what a farm horse should be," "was not a thorough bred *Clydesdale*, but had a dash of coaching [Cleveland] blood in him, a species of farm horse very much in use on the borders, and admired for their action and spirit."

From a recent comparison between English blood horses on the one hand, and the finest specimens of Arabian horses presented to the Queen of England by oriental sovereigns and African horses (Barbs) imported into France by military men on the other, it seemed to me that the former were immeasurably superior to their ancestral races in every respect. In England, of late the Arab and Barb crosses on blood mares have failed signally for the turf, and on the part bred mares have not proved valuable for useful purposes. Amusing pictures are drawn of some solid Anglo Saxon and Celtic troopers in the East now of necessity mounted on Turkish horses, commonly accepted as a sub-variety of the Arab. But for the combined activity, height and weight, without regard to condition, of the horses of the Scots Greys—*ces diables de chevaux gris*, as they were called by the great Napoleon in his last battle field—that Regiment would never have earned its well-remembered fame either at Waterloo or at Balaklava.

The American trotters, which are essentially a Northern creation, have obtained a just celebrity abroad. They can hardly yet be

called a type or pure race, and indeed they are for the most part of a very mixed lineage, and of an extraordinary diversity of sizes, shapes and colors; but the further breeding together of animals of similar qualities and conformation will in the end produce a definite breed. As a class they are certainly not saddle horses, according to either English or Virginia ideas; nor are they carriage horses, or horses of general utility, from defect of size. From the transactions of the New York State Agricultural Society, it appears that the Judges of that Society considered the Morgan family,—which furnishes many fair and some quick trotters,—as too small for "horses of all work."* They would in England be designated as "clever cobs." You will be able to form a clear opinion of them, from having seen lately one or two correct examples at the Agricultural Fair in Richmond. The common ancestor from whom this family is derived, the original Morgan horse, so called from the name of his owner, was foaled in 1793. He was sired by a blood stallion taken from M*****'s great uncle the loyal Col. DeLancey of this State, and out of a part bred mare. His four immediate descendants kept as stallions, in New Hampshire and Vermont, were all out of mares of obscure or unknown origin, some of them, however, probably having a dash of French blood as modified by the three-fold influences of climate, food and crosses, in the adjacent province of Canada. The admirers of the Morgans in the North, sensible of their deficiency in stature for most purposes, do not estimate them by height, the usual method, but by weight like butcher's meat. When in high order they tell comparatively in the scales, for they have surprising aptitude in taking on fat even to the extent of obesity. Weight of a certain sort, but not that derived from the adipose tissue, is certainly a very important element, for conjoined with muscular strength in due proportion it constitutes motive power, on which depends the sole value of the horse; and that motive power is efficient as the height and length and general shape of the animal enable him to apply it with facility and advantage to the work required of him.

You will, doubtless, remember that another distinguished family, the Vermont Black Hawks, as they appeared in procession at the New York Society's show at Saratoga

*It is much the fashion of the dealers in the North to call a horse of any size a Morgan. At the Springfield "National exhibition" fifty stallions passed under that name.

in 1853, were decidedly inferior to the blood horse in size. I think that the Vermont Black Hawk stallion Ticonderoga, shown at the fair at Richmond, was entirely too small for general utility; but he was symmetrical, and the natural attitude of his head and arched neck was admirable. His whole appearance was distinguished, showing a considerable infusion of blood;* and his trot, to my eye, was accurate, gentlemanly and graceful, though I do not know whether it was speedy. These families of horses unquestionably have their appropriate sphere, and that is singly, or, still better, in pairs in a light trotting wagon (as peculiar an American production as the trotters, for Carl Benson, Mr. Bristed, tell us that France neither possesses the wood nor the skill with which to construct one light enough) a vehicle that in the North has almost completely usurped the place of the saddle, and I regret to say it, for there is something peculiarly healthful, physically and even morally, in horseback exercise, which, I am persuaded, has contributed in no little degree to the formation of many of those sterling points of character, in which the English differ from their continental neighbors. For races also in the North the blood horse has almost entirely given way to the trotter.

The most distinguished specimens of the trotters that I have seen are horses with no pretensions to elegance of shape. The other day a young Englishman, (whose noble father is the owner of the winner in the same year of two blue ribbons of the English turf) while expressing to me his surprise and delight with their performance in harness, observed that from their general appearance, and the dangerous look of the position and nature of the shoulders of those he had seen, they would not fetch £10 in England. There is great diversity in the character of their gaits, some of the fastest having an ungainly and confused jumble of gallop before and trot behind, and others a "square" action; but the fast people do not care for the sort of gait on the road, or on the turf, so long as it is not ruled off, provided it is the fastest. These "fast erabs" are hardy, and much "fancy" work may be got out of them if used with care; but we must not suppose that we can take them potbellied with grass, or slaverling from a clover field, and make them go, especially on

our roads, as they do in the North. To perform well, they must be in condition and treated on the same general principles as the racers, whose management is admirably understood and whose successful cultivation has for a long time been pursued in Virginia with much talent and at great expense. I was gratified, at the late exhibition at Richmond, to perceive that we still retained splendid examples of the blood horse.

The last time I met poor Captain Arnold, one of the first victims of the Russian war, he expressed himself in warm terms of admiration of your Cleveland horse, as embodying the points of Hack, Hunter, Charger and harness horse. Another high compliment he received was from a distinguished owner of blood stock in Virginia, who observed that he did not discover from the conformation of your horse any reason, except his size, why he should not run. For my part, I will merely say at present that I do not see in him, after a close examination, and comparison with English models while they are fresh in my memory, any particular point to object to,—reserving, however, a full and minute opinion until next spring as I am not willing to risk a criticism of a fine horse in very rough condition, more especially before the comparatively full development of his growth. Condition has immense influence with every body. One of the best judges of horses appointed by the Royal Agricultural Society of England candidly confessed to me,—with much regret apparently at his "shocking mistake," as he called it,—that Melbourne, now from his progeny, doubtless the most successful and renowned stallion in England, the sire of West Australian and many other winners, and at present distinguished for his powers and points in the eyes of all, came before him as a candidate for the prize offered to the best stallion for hunters, but in very bad order, with sprung knees, &c.; and that he, with all his associate judges, immediately discarded Melbourne as worthless and unfit to compete for any prize. Before his reputation was established, a celebrated judge of horse flesh had seen him in bad order and laughed at him as an "omnibus horse." The effect of condition is not at all unnatural. As a horse cannot exhibit speed until, after great and long labor, he has been put in condition for racing, why should he show his symmetry, his beauty and his merits when nothing has been done to bring them out? The late Lord Ducie waged war on the obese condition in which the breeding animals, of the races cultivated for the secretion of fat, were exhibited

* The better opinion seems to be that the original Vermont Black Hawk horse was got by Sherman Morgan, (a son of the original Morgan) out of a "three parts blood" mare reared in the Province of New Brunswick.

at the meetings of the Royal Agricultural Society, but in the end without avail, for while it was admitted that such a condition injured the various animals themselves, and tended to render them permanently sterile, yet it was alleged that if they were in low or only tolerable order, persons could only vaguely conjecture, and not at all know, the degree of their aptitude to secrete fat evenly and deposit it on the most valuable parts.

I remain, my dear father, ever yours,
FRANCIS R. RIVES.

From the Farmer and Planter.

THE PEACH TREE BORER.

It is desirable to destroy all insects that infest fruit trees, especially the one at the head of this article. And this end is easily attained; if we are to give credence to all the remedies recommended for that purpose, there are as many plans to effect this object, as there are cures for the toothache. They are applied with about the same success, unless the same remedy is used in both cases, viz: extraction, which is the only effectual one.

My purpose is to give only such remedies as I have tried, with my observations and experience on the same. But before doing this, it is perhaps necessary to give some account of the parent insect—a slender, dark-blue, four-winged fly, resembling a wasp. Downing's work on Fruit and Fruit Trees, states, that this insect commences depositing its eggs in the tender bark of the tree at the surface of the ground the last of June. I think it makes its appearance at the South sooner, and continues its operations until October. The egg hatches and produces the borer, which penetrates and devours the bark and sap wood encircling the tree, which causes its destruction. The insect continues in the tree during winter, forms its cocoon, and comes out in the spring in its winged form, and commences depositing its eggs for another generation. I have taken the cocoon and kept it until it assumed the winged state.

The Remedies I have Tried.—No. 1. Downing and others, recommend forming low heads; this is done by topping trees when small, which causes them to branch out near the ground—this shades and keeps the ground moist and cool, thereby preventing the attacks of insects, &c.

No. 2. By driving nails in the roots, which with the sap of the tree forms a salt of iron, thought to be destructive of the borer.

3. Downing recommends a peck of air slaked lime or leached ashes to each tree.

4. The manual operation, viz: extracting.

5. *The Prevention.*—This is done by raising hillocks around the tree before the parent insect makes its appearance, and removing them at the commencement of cold weather.

Observations on the Remedies.—No. 1 is objectionable on account of the roots being shaded and kept moist. This makes the bark more tender about the roots, thereby rendering it more susceptible to the attacks of insects. The first trees I set out, I pursued the course of low heads. By this method the limbs are so near the ground that it makes it very inconvenient to apply remedy No. 4, which is essential, and will be described in its order. All trees which I have set out recently, I have trimmed to four or five feet. This pruning should not all be done at one time, as it will cause the tree to grow so slender that it will not be able to sustain the top. Limbs ought to be left along the stock for the purpose of diverting the sap, which will have a tendency to give strength and a gradual slope to the stock. As soon as this object is attained, the limbs should be cut close and smooth from the trunk. By this course with the shortening-in process, a handsome tree may be formed.

2 failed entirely, besides causing wounds from which the gum oozed out, injuring the tree.

3 also failed. I have applied both ashes and lime to my trees, and find that the worm will work even among these substances (the opinion of Downing and others, to the contrary notwithstanding.) The truth of my assertion was proved with the former by the following fact: A tree standing near my ash-hopper, with ashes frequently unleached all the time around it. This tree would have been destroyed by the worms if I had not taken them out with my knife. Ashes or lime applied in small quantities are good fertilizers to trees, but applied in large quantities will cause a rapid tender growth, more susceptible to the attacks of the borer.

4 is the only effectual remedy for getting rid of this blight to the peach orchard, when it is once lodged in the tree. To effect this remove the earth from the tree, the work of the enemy will be found by his eatings, and the gum oozing from the tree; find the cavity and follow it with the knife until the worm is destroyed. This may be denominated the cure.

"But an ounce of prevention is worth a pound of cure."

5. *Prevention.*—The 1st of November scrape away the earth and expose the roots to the action of the frosts for at least three months,

which hardens the bark and destroys the eggs. If the worm should be there it can be easily removed. In February the trees should be killed and remain so until three or four heavy frosts in the fall, and the roots again exposed as before directed. I once killed my trees in June, but found this was not early enough, as I discovered some worms in the fall. Since I made my hillocks in February, and find them free from worms. By this process the hillock does not remain long enough to injure the tree, or make the bark tender like it is at the surface of the ground where it is covered all the time, causing it to be moist and tender (the hill covers this part) which is most favorable to the maturing and protecting the egg; besides, this mode causes the fly to deposit the egg so high, if it should hatch, the worm travels so slow that it cannot reach the ground, after the earth is removed, and is, therefore, killed by the frost.

As the time is approaching the prevention should be used. I send you this communication hoping that others may be benefited by it.

Yours, &c.

R. A. SPRINGS.

Springstein, S. C., Nov. 30, 1854.

For the Southern Planter.

MUSHROOMS AND HOGS.

Mr. Editor: This is the first day of Spring and the song of the turtle will soon be heard in our land, and, though quite a cool morning, numbers of Blue-birds and Robin-red-breasts are chirping and frisking about amongst the apple trees. In a few months the forests will put on her glorious green mantle, and the showery spells of May will cause to spring up the poisonous *mushrooms*, so hurtful to the Hog, and indeed, I believe, too, to the sheep, though in a less degree. It is customary with the farmers in this region, where woodland is plentiful, and especially after a good mast of acorns, to turn their hogs out in the woods in the fall, after the harvest-fields are pretty well gleaned and dried up, and to permit them to remain there through the Winter and Spring, until the clover or harvest fields are ready for them in the Summer, and consequently they lose a good many of them during the months of May and June from mushrooms.

My object in writing this piece, is to inquire of you, or some of your intelligent readers, why, when corn is given hogs, after they have eaten plentifully of mushrooms, that they, in a very short time, show signs of the effects of the poison; whereas, if no corn is given them, they

rarely or never die from its effects. And I wish also to know what kind of mushroom or fungous production is so noxious, for certainly they can eat that which springs from the popular and several other kinds with impunity. I advance the opinion that they are a *narcotic* poison, probably *acro-narcotic*, causing congestion of the brain and spinal cord, and thereby producing paralysis, to some extent, of the muscles of the legs, which is evinced by the staggering and uncertain direction in which they move, and by its *acrid principle* (if it really has any), causing irritation and congestion of the coats of the stomach and intestines, against which the coarsely triturated or masticated particles of corn impinge, and scratch, and excite into active inflammation which may probably in most instances cause death. The reason why there is not diarrhoea or laxity of bowels during the stage of congestion or irritation of the coats of the intestines, caused by the probable acrid principle of the poison, is perhaps because the *narcotic* principle counteracts it, by a constipating tendency, like that of opium or laudanum. I hope that the introduction of this subject may elicit some positive information and a cure if there be any, for the deliterious effects of the mushroom.

LOUISA, March 1.

BOXERO.

If any gentleman, especially any physician, can shed light on the above subject, we beg him to do so.—ED. SO. PL.

BORAX WASHING RECIPE.

A number of new subscribers have requested us to republish the following recipe, which appeared in a former number. We have been waiting to give the results of some careful experiments in our family, but which were broken off by sickness. Enough, however, was ascertained to convince us that there is really a great advantage in adding a small quantity of borax to common hard soap, previous to using it for washing.

Our method is as follows: To every pound of soap add from one-half to three-quarters of an ounce of common borax, with one quart of water. Put the water in any convenient vessel upon the stove, add the borax, somewhat pulverized, and then put in the soap cut up in thin pieces. Keep them hot, but not boiling, for two or three hours, or until the whole is dissolved, and then set it aside to cool, when a solid mass will be formed. If the vessel is set upon the warm stove at night, the operation will be completed in the morning, though we think it better to stir the mass just before it is cooled.

The night before washing, rub the clothes where most soiled, with the soap, and soak in water till morning. This soap, which has been more than doubled in quantity, will go quite as far, bulk for bulk, as the original, thus saving at least one-half. The boiling and washing are to be performed in the usual manner; but it will be found that the labor of rubbing is diminished three-fourths, while the usual caustic or eating effect of the soap is greatly lessened; and the hands will retain a peculiar soft and silky feeling even after a large washing. The preparation is adapted to all kinds of fabrics, colored or uncolored, including flannels, and it is thought to increase their whiteness. By using this preparation, with the previous soaking over night, we have had sixteen dozen pieces finished early in the forenoon, when, by the old process, it would have been an "all day's job."—*American Agriculturist*.

DISCOVERY IN BAKING.

A correspondent of the "Scotsman," writing from Munich, says: "I have visited Professor Liebig, and seen his admirable lecture-room and laboratory, models for imitation in other countries. He told me that in England the bakers use a great quantity of alum in making bread. It is employed to make the bread white, moist and soft. It acts by coagulating the gluten of the wheat, and it is deleterious in its effects. He has discovered that water saturated with lime produces the same whiteness in bread, the same softness, and the same capacity to retain moisture, while the lime removes all acidity from the dough, and supplies an element needed in the structure of the bones, which is deficient in wheat, and still more so in rye. I ate bread made of it in his house; it was excellent. He uses five pounds of water saturated with lime, to nineteen pounds of flour. No other change is necessary in the process of baking. The lime coagulates the gluten as effectually as alum does. The bread weighs well, and the bakers consequently approve of it. He allowed me to report the discovery at discretion."

LIME.

A valued friend asks us to insert the following article on lime, from Lord Kaim's Gentleman Farmer:

Lime, which is a profitable manure, and greatly profitable when it can be got in plenty within a moderate distance. Philosophers differ widely about its nature, and the cause of its effects;

and they talk so loosely as to convince a plain farmer that the matter is very little understood. But practice is our present theme; and the benefit of lime is so visible, that the use of it has become general, where the price and carriage are moderate. However people may differ in other particulars, all agree that the operation of lime depends on its intimate mixture with the soil; and therefore that the proper time of applying it is when it is perfectly powdered, and the soil at the same time in the highest degree of pulverization. This opinion appears to have a solid foundation. Lime of itself is absolutely barren; and yet it enriches a barren soil. Neither of the two produces any good effect without the other; therefore the effect must depend on the mixture, and consequently, the more intimately they are mixed, the effect must be the greater.—*Kaim's Gentleman Farmer*. p. 259.

From the Alabama Planter.

THE FIELD PEA.

EDWARDS, MISS., Jan. 27, 1855.

Messrs. Editors: The field pea being destructive to cattle and hogs under some circumstances, has, in your eighth number, January 22, another advocate in Mr. David Lee. This matter, I thought had been settled beyond all question by the many writers of the Cultivator in the negative, or perhaps more correctly in the absurdity of such a thing, when Mr. John Smith has turned hogs into his pea field for forty years, more or less, and never lost one.

Some ten or twelve years ago I gave notice in a paper devoted to agriculture, published in this State, that I had lost nearly my entire stock of hogs, and I could attribute it to no other cause than the cow pea (all field peas planted south are styled thus), having examined the field and opened several hogs. This occurred two years after, and a year after I lost nearly all of my milch cows and beeves. This brought upon me much talk of want of care in providing water, salt, &c. Some attributed it to the cockle bur, though my hogs died in November; others to the root of the pea; others to the prickly down on the pea haulm, imagining that it resembled an article used for destroying worms; others to an over quantity ate, though hogs had been in the pea field for thirty or sixty days and cattle for a month; others to the pea being so hard that it irritated the stomach, and some had cut through; but finally settled down to the fact, that no careful man lost stock. To all this I affirmed that salt and ashes and water were in abundance where my stock were; that my stock never died until after a moist, warm spell of weather, and that when kept out at such times, I lost none; but all this would not do. I then produced the names of quite a number of planters who had also lost hogs and cattle, not as early by two or three years as I had, but all would not do.

I continue to sow peas bountifully, permitting no stock but fattening hogs on them; for if hogs

get to pea fields even in January or February, they are killed. Why this is, I leave to others to say, I am not able. Certainly hogs or cattle did not die thus the first twelve or fifteen years I lived here, though all water from the earth is too hard to wash with, indicating lime.

I offer no hypothesis, I know it is so, and I do not think I have a neighbor who has been here ten or fifteen years but can testify at their own experience to the fact, that hogs are killed by something they eat in the pea field.

I thought it but right to support Mr. Lee, as I do not remember that your readers have been served up this dish before. Indeed, I think I was the first one to call attention to this matter; therefore, in aiding Mr. Lee, I am but helping myself, for none of us like to be deemed careless by our peers.

Suppose chemists cannot find any poisonous substance—forsooth our hogs are not dead. I have known horses and mules killed by eating rotten sweet potatoes. Rye in a spoiled condition is very deleterious. Spoiled Irish potatoes, &c., also. Yet I know not that a poison has been detected.

I would plant peas for manure and provide feed for hogs elsewhere, and advise all others to do so.

Yours, with much respect, M. W. PHILLIPS.

For the Southern Planter.

GAS TAR IN HORTICULTURE.

Clover Field, 26th January, 1855.

MY DEAR SIR: Enclosed you will find a scrap cut from the *Intelligencer*, which might not meet your eye. It appears that the insect tribe have a great aversion to gas tar. Only suppose that rolling in this tar when the corn is planted should be a remedy against the bore worm, the benefit would be incalculable.

I remain yours,

F. K. NELSON.

F. G. Ruffin, Esq.

From Galignani's Messenger, as quoted in the Franklin Institute for December, 1854, we learn that a discovery, which is likely to be of great advantage to agriculture, has been reported to the Agricultural Society at Clermond, France. A gardener whose frames and hot houses required painting decided on making them black, as likely to attract the heat better, and from a principle of economy he made use of *gas tar* instead of black paint. The work was performed during the winter, and on the approach of spring the gardener was surprised to find that all the spiders and insects which usually infested his hot house had disappeared, and also that a vine, which for the last two years had so fallen off that he had intended to replace it by another, had acquired fresh force and vigor, and gave every sign of producing a large crop of grapes. He afterwards used the same substance to the posts and trellis work which supported the tiers in the open air, and met with the same results. All the caterpillars and other insects completely disappeared. It is said that similar experiments have been made in some of the vineyards in the Gironde, with similar results. We commend these facts to American horticulturists as equally applicable to other growths than that of the vine.

THE PHILOSOPHY OF RAIN.

To understand the philosophy of this beautiful and often sublime phenomenon, so often witnessed since the creation of the world, and so essential to the very existence of plants and animals, a few facts derived from observation and a long train of experiments, must be remembered:

1. Were the atmosphere everywhere, at all times of a uniform temperature, we should never have rain, or hail, or snow. The water absorbed by it in evaporation from the sea and the earth's surface, would descend in an imperceptible vapor, or cease to be absorbed by the air when it was once fully saturated.

2. The absorbing power of the atmosphere, and consequently its capacity to retain humidity, is proportionally greater in warm than cold air.

3. The air near the surface of the earth is warmer than it is in the region of the clouds. The higher we ascend from the earth the colder do we find the atmosphere. Hence the perpetual snow on very high mountains in the hottest climate.

Now, when, from continued evaporation, the air is highly saturated with vapor, though it be invisible and the sky cloudless, if its temperature is suddenly reduced by cold currents descending from above, or rushing from a higher to a lower latitude, or by the motion of saturated air to a cooler latitude, its capacity to retain moisture is diminished, clouds are formed, and the result is rain. Air condenses as it cools, and, like a sponge filled with water and compressed, pours out the water which its diminished capacity cannot hold. How singular, yet how simple, the philosophy of rain! What but Omniscience could have devised such an admirable arrangement for watering the earth.—N. Y. Observer.

CHLOROFORM FOR DOMESTIC ANIMALS.—The latest report of the Commissioner of Patents contains a very interesting article from the pen of Dr. Jackson, of Boston, Mass., (who first discovered, thirteen years since the paralisation of the nerves of sensation by inhaling ether,) on the use of ether with chloroform for domestic animals, for facilitating surgical operations, either for the cure of diseases, or for rendering them more serviceable to man. Among these operations he mentions the removal of tumors, the application of actual cautery, castration, &c., and also states that very refractory horses had been made to submit to shoeing, and soon learn to submit afterwards without a repetition of the ether.

The ether and chloroform mixture is administered with great facility, by attaching to the nose of the animal, a muzzle or basket, (fastened to the head-stall,) in the bottom of which has been placed a very coarse, open-textured sponge, which has been soaked in water and squeezed dry. One part of chloroform and four of ether are mixed in a bottle, and then poured upon the sponge from time to time as needed, renewing it as it evaporates. The animal breathes it freely, and "soon falls down gently into a deep sleep of insensibility and unconsciousness," and becomes entirely passive to any operation that may be performed.

Dr. Jackson regards the use of pure chloroform as dangerous, and recommends its mixture with ether for animals, as better than ether alone, on

account of its greater power and concentration. The mixed vapors also act more kindly, on account of the slightly stimulating property of the ether overcoming the deadly sedative effect of the pure chloroform. Dr. Jackson remarks that he has never known a single fatal accident from the administration of the vapor, nor of this mixture, provided air was also admitted into the lungs mingled with the vapor, so as to sustain the functions of life as required for respiration. This remark, we understand, he applies to its effects on the human system, in which his practice has been most extensive.

Animals that have considerable sensible perspiration, will bear large doses without any danger; such is the bull, horse, &c., while a *cat* may be readily killed by a full dose of chloroform, and it should be very cautiously administered to the dog. Ether, alone, mixed with air, is considered as perfectly safe.—*Country Gentleman*.

SCRATCHES IN HORSES.

A correspondent of the Maine Farmer gives the following remedy:

I noticed in your paper several receipts for the cure of scratches in horses, among them was that of a solution of lime, which, if it had appeared a little sooner, I should have been tempted to have tried on a three year old colt whose lameness, which appeared about three weeks since, was found to be caused by the scratches. After the repeated application of remedies said to cure the disease, for about a fortnight, with apparently no effect, I applied a coat of zinc paint and oil. By examination the next day after the priming or application of paint, I found signs of amelioration of the condition of the sores, and in a day or two decided signs of improvement, and now, although it has been but a few days, the colt is free from lameness, and the sores are healed. The remarkable rapidity with which this cure was brought about was evidently owing to this simple and easily applied remedy, and the object of speaking of this remedy, is the good of those horses whose owners are ignorant of its good effects, in this disease.

CAPACITY OF BOXES.

A box 24 inches by 16 inches, square, and 28 inches deep, will contain a barrel, (five bushels.)

A box 24 inches square, and 14 inches deep, will contain half a barrel.

A box 26 inches by 15.02 inches square, and 8 inches deep, will contain one bushel.

A box 12 inches by 11.02 inches square, and 3 inches deep, will contain half a bushel.

A box 8 inches by 8.04 inches square, and 8 inches deep, will contain one peck.

A box 8 inches by 8 inches square, and 4.02 inches deep, will contain one gallon.

A box 7 inches by 8 inches square, and 4.8 inches deep, will contain a half gallon.

A box 4 inches by 4 inches square, and 4.01 inches deep, will contain one quart.—*Farmer's Journal*.

WEIGHTS OF MEASURES.

The following table of the number of pounds of various articles to a bushel, may be of interest to our readers:

- Of wheat, sixty pounds.
- Of shelled corn, fifty-six pounds.
- Of corn on the cob, seventy pounds.
- Of rye, fifty-six pounds.
- Of oats, thirty-six pounds.
- Of barley, forty pounds.
- Of potatoes, sixty pounds.
- Of bran, twenty pounds.
- Of clover seeds, sixty pounds.
- Of timothy seeds, forty-five pounds.
- Of flax seed, forty-five pounds.
- Of hemp seed, forty-four pounds.
- Of buckwheat, fifty-two pounds.
- Of blue grass seed, fourteen pounds.
- Of castor beans, forty-six pounds.
- Of dried peaches, thirty-three pounds.
- Of dried apples, twenty-four pounds.
- Of onions, fifty-seven pounds.
- Of salt, fifty pounds.

A NEW REMEDY FOR SMUT.

We give below a short extract of a letter from a friend on this very important subject. We do not give the name of the writer because he wishes to test the efficacy of his plan before he recommends it too confidently. We hope others will remember it at the proper time and give it a trial.

"I sowed one hundred bushels of wheat last October, every grain of which was put into *boiling-hot* water; it is at this time the best looking wheat in this part of the country. I tried fifty bushels of very smutty wheat in the Fall of 1853, and had not one head of smutty wheat, nor fly, nor anything to injure the crop but rust. I got this hint from Virgil, so that it is not *exactly* new, and should it turn out well this harvest, I will give you a full account. I am afraid to *holler* on one experiment; but knowing that smut proceeds from the puncture of a bug that deposits an egg which turns to a maggot, and then to a fly. I showed the worm *in the smut grain* to Mr. Newton and to Col. Brown, at my house. Now the boiling water will destroy all things of this sort. Let me refer you to the Agricultural Museum, published at Georgetown, D. C., in 1811."

GALLS FROM THE HARNESS OR SADDLE.—Major Long, in his valuable account of his expedition to the Rocky Mountains, says that his party found white lead moistened with milk to succeed better than anything else in preventing the bad effects of the galls on the horse's back, in their march over the plains that border the mountains. Its effect in soothing or soothing the irritated and inflamed surface was admirable.

From the American Cotton Planter.

COMPOST MANURES—STOCK YARDS, &c.

Gov. BROWN,

Dear Sir: The preparation of stock-yard compost manure and its proper application to the soil, as a fertilizer, in the production of our important crops, cotton and grain—with some remarks on the value of Guano to the Southern Planter, will claim our attention at this time. This species of fertilizer, the most common, and cheapest to the planter, is valuable in proportion to the care and attention exercised by the proprietor in its preparation. This fact I have clearly shown in a previous article. I have given this subject much careful attention, and I am thoroughly convinced that too much importance cannot be attached to it, as an integral item in our plantation economy. Compost manuring, in connection with stock raising and pasturage, is the true renovator of all agricultural exhaustion. Stock are the inseparable companions of agriculture. All the team service of the plantation they perform. They also furnish quite a considerable proportion of the food consumed by the family and operatives of the plantation. In the performance of all this important service they must consume on their part a very considerable proportion of the produce of the plantation. In this consumption, however, of hay, fodder and grain, under proper management there is really nothing destroyed or lost to the plantation. It is at this point the great difficulty is encountered by planters in the preparation of compost manures. When the range is relied on for stock raising and feeding, as is almost universally the case, in the planting States, the penning and shelter of stock every night is attended with a great deal of trouble, and the food consumed—after the first month or so in the early spring—is of such character and procured at such toil, on the part of the stock, as merely to sustain animal life, and their excrements, of course almost valueless as a fertilizer, at least comparatively so. This fact, connected with the rude and careless means usually adopted on plantations for composting and saving manure, furnishes the criteria upon which the opinion of the planting public is based, as to the value of the compost manures and the importance of its preparation in the plantation economy of the country.

In an article published in the November number of this journal, extracted from a premium essay, prepared for the "Maryland Agricultural Society," the position is taken that compost manures are not worth the hauling. This is the result of experience in Virginia. This opinion is very common all over the country, and it is the effect of that state of things which we have detailed above. My experience for the last twelve years has led me to a very different conclusion. Analysis shows, that the dung of animals—the horse, cow and hog—well kept, abounds in the very same fertilizing elements that make Guano so valuable. If then the proper treatment of stock on the

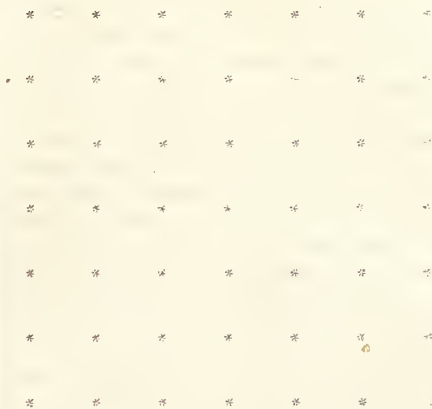
plantation fit them for the greatest value as teamsters, milkers and porkers, and in that condition their excrements produce the most valuable fertilizers, how important is it, in an agricultural point of view, that the fact be distinctly understood and acted on by the planters of the country. My experience fully sustains this position. In a previous article I have shown that this system of rotation and shift of crops furnish the necessary means, in rich pasturage and abundance of grain to keep the stock of the plantation in proper condition. In this condition of the stock of the plantation, I may answer another one of your inquiries, as to the number of stock that may be thus kept to the hand. This answer is properly in place here previous to entering upon the details of preparing compost manure. Twenty head of cattle to five hands will answer all the wants of the plantation. The number of hogs is to be measured by the bacon necessary to do the place. Plough teams, one for every two hands, and sheep enough to clothe the negroes. Of course on large plantations the exact number cannot perhaps be preserved, but about this proportion will be found to answer every needful purpose. Now then on a plantation thus arranged and stocked, as mine is, I shall proceed to give in detail the plan of operations which I pursue, by which I am enabled to make 2500 bushels of good rich compost manure per hand every year, and the only proper mode of applying it to the land.

In the first place, the farmer's golden rule is emphatically applicable here, and I may add entirely essential to success—"a place for every thing and every thing in its place." Each kind of stock must be provided with lots and shelter, and they must be induced or driven into their quarters every night during the entire year. These lots, stables and shelters are to be constantly and regularly kept well littered with vegetable matter, which being broken and tread up by the stock walking and tramping over it, forms a most valuable absorbent for preserving the fluid portions of the excrements. For gathering pine, straw, oak leaves and other decaying vegetable matter from the forest, I have seen various plans recommended, such as detailing such hand or hands and cart for every five or ten hands on the place, &c. But I have found no plan to answer so well in practice as this: I have prepared for each hand a good, substantial and handy iron toothed rake—during wet, rainy weather all hands, with these rakes, gather rapidly large quantities of vegetable matter, which is easily hauled into the lots on large frames made for the purpose. This is a general rule and rigidly persevered in during all the year, except in winter after the crop is gathered, when I have it hauled into the lots as it may be needed, as we are not then so particularly engaged in the plantation. In the spring and summer, after every fall of rain, all hands are engaged in raking up and hauling litter into the stock lots. Under this arrangement, a day after the fall of a wetting rain, can

be more valuably employed by the hands of the plantation in collecting materials for preparing manure than by ploughing and hoeing the wet soil. Every planter knows well the injury done to the land by working on it while wet. The crop is not benefitted by work done at such time, nor is the grass or weeds so likely to be subdued. But the time may be most valuably employed in preparing the materials for composing manure, and when the land is in proper condition for work the cultivation of the crop is resumed under the most favorable circumstances. The great point gained is this: the large amount of rich, productive manure, which being applied to the land, under judicious culture, secures the production of the desired crops on one-third the surface required on the same land to grow it, without the manure. After the preparation and planting, manured land being just as easy to cultivate as that unmanured, the time for preparing manure while the land is wet after a recent fall of rain, is most profitably employed. All decaying vegetable matter, about the plantation, such as weeds, grass, &c., that grow and collect in the fence jams, in low, wet places, in the ditches, &c., should be carefully raked up, and at a convenient time hauled into the stock lots. Muck also, where it may exist in ponds and branches within or contiguous to the plantation, should be hauled up in the summer while dry and light, as nothing contributes more valuably to the compost heap, nor is any absorbent perhaps more retentive of the valuable fluid portions of fat animal excrements. This is the process by which I am enabled to prepare the large quantities of rich, valuable, compost manure per hand, which I apply to my land annually. There is another important item in the preparation of manure, which should be mentioned here. It is the construction of the stock lots. This should be done in such manner as to prevent any water from running into them, that does not fall immediately on them, nor should any water be allowed to escape from them. Moisture is a component part of compost manure. Too much water, however, adds more to the expense of carriage than to value in fertility. This teaches the economy of housing and sheltering the compost heap, that we may be spared the expense of hauling to the field so much water, quite as heavy as the manure itself and of no value. Of course, every planter engaging in the preparation and saving of compost manure will consult the conveniences of locality, &c., of his plantation in the construction of his stock houses and lots, and other arrangements for the business.

I shall now give you my mode of applying the manure to the land. Of course I esteem it the proper mode. As I have stated elsewhere, my land, though but little undulating, is all laid off in rows as nearly level as instrumental operations can accomplish. The manure is hauled out on the land in carts, with tumbling bodies, graduated, to hold an exact number of bushels. In the commencement a row is

selected 15 feet from the fence or beginning. This is the heap row. Fifteen feet from the end of this row the first heap, or half the load is deposited, it is raked out by removing the hind gate of the body. Thirty feet from this on the same row, the second heap is made by tumbling the body, when all the manure slips out and the further trouble of unloading is saved. The following simple diagram of a single acre, shows the simplicity and perfection of this mode of operation at a moment's time, and a negro of ordinary intelligence is enabled to do the work without any difficulty or inconvenience:



EXPLANATION.—The stars represent the heaps of manure, each containing ten bushels, placed in the centre of squares of 900 square superficial feet—giving 49 to each acre.

Thus it is seen with what perfect regularity and uniformity the manure is hauled on the land. This done, we proceed to spread it out over the land, by first running off the rows with a scooter plough in the old water furrows which is yet perfectly visible, though the land, lay last year in fallow—then two hands are put to each heap row of manure, with good shovels, (Ames' long handles are best,) and they scatter each heap for fifteen feet on all sides, which gives ten bushels of good manure to the surface of 900 square feet. All this is plain, simple, efficacious and practical; thus the broad-casting continues until one suit of rows is done, when the ploughs commence, by first running around these rows with a scooter goop and deep, and the balance is broken and bedded out with good turning ploughs, by running four times in each row, thus dividing the soil equally and throwing up each row uniformly. You thus see that the manure is incorporated equally and uniformly throughout all the soil. Whatever may be the opinion of casuists to the contrary, this is the true economy in the application of compost manure. I have given you in this detail the plan of operations that I pursue in the preparation and application to the soil of compost manure.

DR. CLARK.

For the Southern Planter.

POSTSCRIPT TO REMARKS ON THE EFFECT
OF LIME ON SORREL.

After my answer to the published denials (by Dr. Pendleton and the editor of the American Farmer,) of the growth of sorrel being destroyed by lime, had been sent to the press, I made a visit to Prince George county and attended the monthly court on March 8th. I made use of the accidental opportunity to invite the farmers then present to state their testimony on the question, whether for or against my views. A paper with both the two following headings, of opposite purport, were submitted, and, after full notice and explanation, it received the signature (as was believed) of every experienced marling or liming farmer then on the ground.

Among the signers who support my position, several reported strong cases of apparent exceptions to the general rule affirmed. Of these, one farmer (like Dr. Pendleton and his friend,) had seen the quantity of sorrel *increased* for the first year after liming; but having given longer time to observation, he found the growth to disappear the next year, and thereafter. Another, on his land from which previous marling had removed the sorrel, had known that plant to appear again partially, after a later dressing of a peculiar gypseous and sulphureous and also fertilizing clay. Another had known the growth of sorrel, which had disappeared generally from a field after marling, to return in great abundance on, and precisely limited to, a small space thickly covered with rotting pine leaves as manure. Others stated, (and perhaps every one might state,) that after light and irregular marling or liming, and the consequent general disappearance of sorrel, that some spots still continued to produce that growth. In a few other cases of the oldest and only marlings, and where the dressing had not been heavy, and also where the organic matter and the fertility of the soil have much increased since, that sorrel, after long disappearance, had again returned in a few scattered plants. This partial return, even after the oldest known single marlings, (of 36 years,) has not yet occurred where the dressing had been heavy. This late return of sorrel on marled land was anticipated and predicted, and other reasons therefor stated, many years before the occurrence of any such fact had been known. [See p. 219 of 5th edition, and the same passage in all the older editions of the Essay on Calcareous Manures.] Yet all of these apparent or temporary exceptions did not invalidate or weaken the general rule, to the several witnesses and reporters, or

oppose the written testimony which they have here offered. This testimony, I trust, will be deemed more than enough to maintain, and that without exception, my position, which has been assailed and denied, viz: that *marling or liming, in proper manner and quantity, will entirely destroy the growth of sorrel, and prevent its return.*

EDMUND RUFFIN.

Prince George, Va., March 9th, 1855.

COPY.

[First Heading.]

"The undersigned, by personal experience and observation, as well as from general report, are perfectly sure that marling, or liming, sufficient and proper for the most profitable manuring of land, has, on our respective lands and others, destroyed the former growth of sheep-sorrel, and prevented its subsequent growth.:

NAMES OF FARMERS.		Years since beginning personal use of marl or lime.	Age of earlier marling (not since repeated,) by predecessor on same farm
William Gee	marl	12 years	
Nat. W. Osborne	lime	10 "	
Edmund Ruffin, jr.	marl	16 "	36 years
Alfred Butts	"	20 "	
Alex. C. Harrison	"	14 "	18 years
Wm. E. Proctor	"	10 "	
Robert Harrison	"	20 "	
Edward A. Marks	"	26 "	34 years
David Tatum	"	20 "	
William Bryant	"	10 "	
Peter Eppes	"	10 "	
J. M. Jordan	lime	10 "	
Williamson Simmons	marl	15 "	
Nat. C. Coker	"	14 "	34 years
William Shands	"	20 "	
J. C. Hobbs	marl and lime	14 "	
Archibald Glover	marl	9 "	
James B. Coker	"	20 "	28 years
Samuel T. Smith	"	6 "	
Henry Hollingsworth	"	15 "	
T. W. Simmons	"	12 "	
John Avery	"	20 "	
S. G. Wells	"	15 "	
Thomas H. Daniel	"	12 "	
Robert R. Collier	"	16 "	
James S. Gee	"	25 "	
Wm. L. Shaekelford	"	15 "	
George A. Wilkins	"	9 "	
Peter C. Marks	"	15 "	
John A. Peterson	"	25 "	
Wm. H. Edwards	"	12 "	
Richard G. Dunn	"	28 "	
Giles Johnson	"	14 "	
W. H. Warthen	"	5 "	

[Signatures—Ayes 34.]

[Second Heading.]

"The undersigned, marlers or limers of experience, believe that marl or lime, applied as manure in proper quantity, and well intermixed with the soil, does not destroy and will not prevent the growth of sheep-sorrel.

[Signatures—None.]

A NEW CULTIVATOR.

A correspondent of the Farmer's Companion brings forward a good idea in relation to cultivators.

"As these implements are generally made, there is one pair of teeth standing side by side, and very close together, near the front end. These teeth, from their shape and position, are constantly picking up sods, stones, &c., making it necessary to lift the cultivator and shake it clear, or even to stop the horse for the same purpose. I made some alterations in mine to remedy this evil, two or three years ago, and it has worked ever since to my entire satisfaction.

"The remedy is this: to alter the position of these two teeth, placing one further forward and the other further back, so that any obstacle, instead of striking both at once, will strike first one, and then slide off to the other. It is obvious that the distance of these two teeth from the centre line of the machine must be kept the same, which there is no difficulty in doing, if the side pieces are made of tolerably wide stuff, say four inches.—*Prairie Farmer.*

An exchange says: "Farms occupy two-thirds of the land of England. The number of the farms is 224,318; the average size 111 acres. Two-thirds of the farms are under that size, but there are 771 of above 1,000 acres. The large holdings abound in small farms in the north. There are 2000 English farmers holding nearly two million acres; and there are 27,000 others who altogether do not hold more. There are 40,650 farmers who employ five laborers each; 16,801 have ten or more, and employ together 311,703 laborers; 170 farmers have sixty laborers each, and together employ 77,000."

A GOOD SOAP RECEIPT.

Have the ley of sufficient strength to float an egg; measure it into barrels as obtained, and to each gallon add 1 lb. of grease. Stir every day until it becomes thick, then to 16 gallons of this soft soap put 4 gallons of ley as strong as that above. Boil 1 hour or more, until the grease entirely disappears. Then dissolve 6 qts. of salt in 4 gallons of water. Stir it in, and boil the whole 15 minutes longer. Pour it out into tubs to harden, cut it out in bars, and dry in the shade.

A GOOD COMMON CAKE.

One large tea-cup of sugar, three eggs, six oz. butter, one pint milk; two cups raisins, one cup of yeast, three pints of flour; cinnamon and nutmeg. Bake in a pan after it has risen.

From the Boston Cultivator.

LICE ON CATTLE.

Messrs. Editors:—Having seen in the Cultivator many articles on the subject of lice on cattle, and one in particular from B. N. Andrews, Watersbury, Connecticut, I beg to reply thereto. I am accustomed to purchase cattle from droves in the fall for wintering, and have been greatly troubled in this way: and having tried tobacco, oils of various kinds, skimmings of the pot where pork had been boiled, &c., and finding all very objectionable, rendering the hair of the creatures rough and filthy, I resorted to other means, and found them better. Having purchased a pair of cattle with sore necks all covered with lice, some one told me to bathe them with N. E. rum; I did so, and it killed all the vermin that it came in contact with, and healed their sores at the same time. It may be applied conveniently with a sponge; I have used it for three years, and find it not only effectual but cheaper than any other dressing; half a pint, the cost of four cents, being sufficient to kill the vermin of any ox or cow; and I think that tobacco, unguentum or grease need not be cheaper; besides which, it leaves the hair clean and smooth. It may require to be used twice, as some nits of the vermin may hatch after the first application. It is also an excellent remedy for the sore shoulders or back of galled horses, as well as lameness or hurts in all kinds of cattle, as also, the sore or creaked teats of milk cows. It should be disguised with camphor or other harmless article and be kept in every barn, or under lock and key, as it may possibly evaporate under some latitudes. GEORGE D. GATES.

CORN FODDER.—My cows have eaten this winter without 20 lbs. waste, what came from an acre and one fourth, except what was cut and fed out green before November. I have bright clover, and English hay, red-top, &c., but nothing that is liked as well by cows giving milk, as cow-corn. They eat it "all up clean," and give more and better milk than when fed on hay. My cow-corn when sowed is the best white flat I can get, and from as far South as Delaware, the farther South the better. Rows, $3\frac{1}{2}$ feet apart, from 40 to 60 kernels to a foot in the drill, sowed with a machine of my own construction. The fodder from one rod square, weighed 225 lbs. when taken to the barn—a more perfect drying of the stalks would have reduced the number of pounds some, how much I know not.

[*Cor. Granite Farmer.*]

SELF-REGULATING WINDMILL.—Daniel Halliday, says the *Farm Journal*, a mechanic in an obscure country village, Bellington, Connecticut, has done what the world of Mechanics have sought for in vain for centuries. He has invented and put in successful operation a Wind-mill, with self-furling sails. The mill built by him has five-foot wings, that is, the diameter of the wind-wheel is ten feet, and it has been in operation for six months without a hand being touched to it to regulate the sails. It ran fifteen days at one time without stopping day or night, and it has stood through hard gales: the beauty of the improvement is, that it does stand still when the wind rages hardest, with the edge of the wings to the wind, and as it lulls they gradually resume their position for the gentle breeze. It is so contrived that nothing but a squall of great severity falling upon it without a moment's warning can produce damage.

The mill mentioned has drawn water from a well twenty-eight feet deep, one hundred feet distant and forced it into a small reservoir in the upper part of the barn, sufficient for all farm purposes, garden irrigation, "and lots to spare."

The cost of such a mill will be \$50, and the pipes about \$25. It is elevated on a single oak post a foot square, the turn circle being supported by iron braces. The wings are made of one longitudinal iron bar, through which run small rods; upon these rods narrow boards half an inch thick are fitted, holes being bored through from edge to edge, and screwed together, by nuts on the ends of the rods.

This makes strong light sails, but as will be seen are tight fixtures not to be furled or clewed up; but they are thrown up edge to the wind by a very ingenious and simple arrangement of the machinery, which obviates the great objection to windmills for farm use: the necessity of constant supervision of the sails to suit the strength of the wind.

[We scarcely know of any one invention of so wide importance as this, of a good, sure, safe wind-mill; one which could be put up and kept up at a small expense, and which could be relied on to do work a good part of the time. The uses to which such a power could be put are almost innumerable. We have already mentioned pumping as successfully done among us, by a mill built at Jacksonville in this State. A young man in this city has taken a patent for a mill which exposes one set of sails to the wind while the others are furled.—Ed.]—*Prairie Farmer*.

NUMBER OF SEEDS IN GIVEN WEIGHTS.—Mr. Melvin stated in a late discussion at an English Farmer's Club, that after several trials he had found that—

1 lb. of red clover of good quality gives, per acre,	
to each superficial foot,	6 1/2 seeds.
1 lb. yellow clover, (<i>medicago lupulina</i>), ..	6 "
1 lb. white clover,	16 "
1 lb. rye grass,	5 "

But as a large number of the seeds sown do not vegetate, and many of the plants which come up die, it is necessary to sow much larger quantities than are specified; and Mr. M. recommends for an acre 8 lbs. red clover, 2 lbs. white do., 2 lbs. yellow do., with one bushel of rye grass, which by his computation affords 100 seeds rye grass, 50 red clover, 32 white, and 12 yellow clover, per superficial foot. In this country, a good substitute for the rye grass would be the same quantity of red-top per acre.

COOKING FOOD.—The Shakers, at Lebanon, New York, in the Patent Office Report, speak thus:

"The experience of more than thirty years leads us to estimate *ground* corn, at one third higher than *unground*, as food for cattle, and especially for fattening pork; hence, it has been the practice of our society for more than a quarter of a century to grind all our provender. The same experience induces us to put a higher value on *cooked* than upon *raw* meal; and for the fattening of animals, swine particularly, we consider three of cooked equal to four bushels of raw me¹. Until within the last three or four years, our society fattened annually, for thirty years, from 40,000 to 50,000 pounds of pork exclusive of lard and offal fat; and it is the constant practice to cook the meal, for which purpose six or seven potash kettles are used."

Scientific men have said this for years; here is the testimony of *practical* men who make no pretensions to science. In this way true science and practice always agree. They are one and the same thing in a different shape. The new moon is no less a moon because we only see her horns.

Fur. Companion.

A GOOD KIND OF CORN BREAD.

Take one quart of corn meal, three eggs, one table-spoonful of lard, a little yeast and salt; make it up tolerably stiff; after it has risen put a small tea-spoonful of soda and a tea-spoonful of brown sugar in a little milk, and stir it in; the quantity of milk depends on how you wish to bake it: if in rolls very little. It may be made thick enough to drop in spoonfuls into an oven and bake with a lid; or made thin enough to bake like *batter-bread*. If it is made at one or two o'clock it will rise sufficiently for supper; if at breakfast time it will do for dinner, when it should be baked in pones.

GINGER CAKES.

Three pounds and a half of flour, 1 1/2 lbs. of butter, a tea-cup of ginger, (this quantity must be less if the ginger is very strong,) 1 lb. of sugar, a tea-spoonful of soda dissolved in sour cream or in vinegar, with a sufficient quantity of molasses to moisten; work the ingredients well together, roll thin, and bake brown.

Mr. Editor.—Will you allow me through your columns to make a recommendation which may prove serviceable to the farmers of the county in the coming season?

The corn crop of this county, we all know, was more injured last summer by chinch bug than by the drought which prevailed throughout the country. Upon examination, I find this insect in full force now in the broom sedge which abounds so extensively in our uncultivated lands. They are "alive" if not "kicking," and will be ready to sally forth upon their work of destruction as the warm weather approaches, unless some means be resorted to for destroying them at once. In their present partially torpid condition the application of fire to the sedge fields will do this work. Let every farmer at once apply the torch before the warmth of spring imparts to this destroyer the activity which enables it in warm weather to take refuge under ground where neither fire nor water

can destroy it. By this means our farmers will not only rid themselves of one of their worst enemies, but will greatly improve the face of their country. Act promptly!

Charlotte. Jeffersonian.]

YOURS, &c.
IVY CREEK.



THE SOUTHERN PLANTER.

RICHMOND, APRIL, 1855.

TERMS.

ONE DOLLAR and TWENTY-FIVE CENTS per annum, which may be discharged by the payment of ONE DOLLAR only, if paid in office or sent free of postage within six months from the date of subscription. Six copies for FIVE DOLLARS; thirteen copies for TEN DOLLARS, to be paid invariably in advance.

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A Limited number will be inserted at the following rates: For each square of ten lines, first insertion, ONE DOLLAR; each continuance, SEVENTY-FIVE CENTS. Advertisements out of the City must be accompanied with the money, to insure their insertion.

It is indispensably necessary that subscribers ordering a change should say from what to what post office they wish the alteration made. It will save time to us and lose none to them.

Postage on the Southern Planter, (when paid in advance,) to any part of the United States one cent and a half per quarter, or six cents per annum.

THE CLIMAX OF WHEAT REAPING INVENTIONS.

Mr. J. J. Hite, of White Post, Clarke county, writes us: "There is a patent now being taken out by W. F. Pagett, of this county, for an automaton binding apparatus to be combined with the improved McCormick Reaper, which by the aid of one, or perhaps two men, who ride on the platform the machine will bind the wheat into sheaves and will deposit them at intervals for shocking, probably as many as six or twelve in a place."

We know of one gentleman whose hands christened the first reaper as "*the big nigger*." This beate that, or will if it succeeds, so far that the only improvement on it must be the invention of an automaton negro out and out, who can plow the land and sow the wheat and take the machine to the field and cut it when it is ready.

RESCUE GRASS.

COLUMBUS, GA., Dec. 13th, 1854.

Dear Sir:—I take this method to bring to your notice a foreign Winter Grass, the seed of which is now acclimated, and which I sincerely desire every farmer in the South to possess and cultivate. This grass grows in the fall, winter and spring only; and for the grazing of stock and making nutritious hay and restoring worn out fields, has no superior. This grass has the following valuable qualities, which four years' experience has abundantly demonstrated:

1st. It has the largest grain of any known species of grass, being nearly as large as wheat.

2nd. It will grow (on very rich ground) from three to four feet high.

3d. It is never injured by cold—no freeze hurts it.

4th. It is never troubled by insects of any kind.

5th. It is never injured or retarded in growth by heavy rains, overflows or ordinary drought.

6th. It grows as fast as Millet or Lucern.

7th. It is as nutritious as barley, and stock are as fond of it as they are of that.

8th. It will keep horses, mules, cattle, sheep, goats, hogs and poultry fat, throughout the winter and spring, from November to June.

9th. It will then (the stock being withdrawn, and the ground being rich) yield from four to six tons of excellent hay per acre.

10th. It saves corn and fodder being fed away to stock during the winter and spring.

11th. It completely protects fields from washing rains.

12th. It enables farmers to have an abundance of rich milk, cream and butter, with fat beef, mutton, kid, pork, turkey and chicken for their table.

13th. It will (if followed with our cornfield pea) give to farmers the cheapest, the simplest, the surest and most paying plan to reclaim worn out fields, and refertilize those not yet so, which the ingenuity of man can devise.

14th. It will sow its own seeds after the first time, without expense or trouble, thereby reproducing itself through its seeds on the same ground ad infinitum.

15th. It does not spread or take possession of a field, so as to be difficult to get rid of, but can be effectually destroyed at any stage before the seed ripen and fall out, by being ploughed up, or under.

This grass having the above enumerated properties will be found by all who cultivate it, far superior to any other species ever introduced, or which can be introduced, for the climate and soil of the South. I shall be prepared by July next, to furnish seed of this valuable grass to all who desire to cultivate it. My price is \$5 per peck, which is as much as is necessary to begin with; it being distinctly understood that in every instance where the party is not satisfied (after giving it a fair trial, the price shall be returned.

Your obedient servant,

B. V. IVERSON.

A correspondent and subscriber requests us to give our opinion of the Rescue Grass, which, as many of our readers know, is a grass newly introduced into this country, whence is doubtful, and patronized by a Mr. Iverson of Georgia, who has given it the name it bears because he asserts

it to be a remedy for nearly all the ills that land is heir to, first-rate for hay in summer and grazing in winter, and the greatest discovery yet made for improving good land and renovating exhausted soil. We give our opinion reluctantly, because it is almost a personal matter with Mr. Iverson to dispute the merits of his grass, and because we fear we offended him, or came near it, in declining an agency for the sale of it about a year ago. And really, it is unpleasant to fight the battles of the public with every individual who has an enthusiastic admiration for his own stock, grass, grain, pea, machine, implement or invention. Still we must try and do our duty, which is in this instance to say that we attach no peculiar value to the *Ceratocloa Breviaristata*, or Rescue Grass of Mr. B. V. Iverson of Columbus, Georgia.

The price of the seed, \$5 per peck, with an obligation on the part of the purchaser to raise none for sale, is too much to pay, and it creates a monopoly to which we object decidedly, and which no farmer should desire, if really anxious for "every farmer in the South to possess and cultivate" it.

2. "Four years" is time enough to establish, by disinterested testimony, some of the merits of this grass, and though a diligent reader of the Soil of the South, the Southern Cultivator and the Alabama Cotton Planter, we have seen no testimony of the kind, so that the "experience" of others seems not to have endorsed Mr. Iverson.

3. The grass is an annual: and we hold that none of that family of grasses can be invaluable, or very valuable even, as the seed have to be sown every year, or have to seed themselves. In the first case rye is as good a grass as we can get, (or oats further South), and will grow quite as luxuriantly, on similar soil, as Rescue Grass, and corn sown for soiling must be infinitely better and capable of producing more green meat on inferior soil. Wheat is well known to be among our most hardy winter plants and to grow as rapidly, in favorable seasons, as any other. It makes very good pasture for sheep and calves, and when very rank in growth, and the land is not liable to poach from the treading of heavy cattle, it is sometimes improved by grazing them on it. But nobody expects it to grow "as fast as millet or lucerne," and if the Rescue Grass does we cannot see how "in very rich ground" growing "in the fall, winter and spring," it shall reach a height of only "three or four feet." If it does no more than that rye will match it, at a cost of 80 cents per bushel, and only the labor of sowing the seed, for it may be put in with the last working of the corn, against \$20 per bushel for the Rescue Grass.

Even cheat or chess, growing spontaneously on good land, will make fair hay, and under favorable circumstances attains as great height and luxuriance in our latitude as Mr. Iverson's grass reaches

in the warmer and earlier climate of Georgia. In the second case, if left to seed itself it cannot be grazed, or cut for hay, in summer, because if it is it will make no seed, and so we lose the advantage of the pasturage or the hay.

That it will yield from four to six, on an average five, tons of excellent hay per acre, after the stock have been withdrawn the first of June, will hardly be credited by those who know how slowly any of our valuable grasses or grains reach a good height after having been grazed to that period. If any are so credulous we beg them to look at this statement: The straw of wheat weighs about twice as much as the grain,* and a maximum crop for an acre may be safely assumed at 40 bushels or 2,400 lbs., the straw of which would be 4,800 lbs. and five feet high at that, to say nothing of the stubble. But 5 tons are 11,250 lbs. or $2\frac{1}{2}$ times more, and full $1\frac{1}{2}$ times more than grain and straw combined! A pretty fair yield when we remember that the stock had been only taken off the first of June, and that "this grass grows in the fall, winter and spring only." Assuming June to be a summer month in Georgia, which we know it was once, for we tried it, and assuming that Mr. Iverson cuts hay in July, it follows that the Rescue Grass has one curious property not stated in the circular, viz: that it will make 5 tons per acre and reach a height of four feet in a month without growing at all.

Mr. Iverson's assertions prove too much, and until the laws of vegetable growth are changed, as in the case of Jonah's gourd, we cannot believe that any annual plant will keep cattle well, summer and winter, improve the land, and seed itself. The blue grass sods of Kentucky cannot do it. We do not mean to say that Mr. Iverson does not believe all he utters about his grass; he may be an enthusiast, and enthusiasts believe every thing about their idea of the moment. But we mean to say that we do not believe one-tenth of what he has told the public. So much we have a right to declare, without just cause of offence, and without being construed to attack any one's veracity. It is certainly fair to allow Mr. Iverson to speak for himself, as we have done by publishing his circular at the head of our strictures.

For all the purposes that we conceive our correspondent to have in view, we believe that rye sowed in the early fall or, preferably, at the time of laying by the corn land that is not destined for Wheat, will answer a better purpose, and we do not hesitate to advise him and every one else, to sow a quantity of it proportioned to his occasions for winter and spring grazing and for summer soiling, than which latter, nothing will better pay most of our Virginia farmers.

P. S. Since writing the above we have seen Mr.

*British Husbandry, vol. 2, p. 154.

J. C. Gates of Chesterfield, who bought last fall one peck of Reseue Grass and seeded it about the middle of September on land of medium quality, guanoed with 200 lbs. good Peruvian, per acre. He says that now, the 14th day of March, the grass, which has never been grazed, is as high as his finger. This statement is made by his authority.

WIDE BEDS FOR LOW GROUNDS—BEAVERS IN VIRGINIA.

It will excite the suprise of many to learn, from the Postscript to the following communication of our friend Mr. Irby, that the Beaver still lingers in Virginia. We had thought with Bryant in the Prairies,

"The beaver builds

No longer by these streams, but far away,
On waters whose blue surface ne'er gave back
The white man's face, among Missouri's springs,
And pools whose issues swell the Oregon,
He rears his little Venice."

But it seems that though a fugitive from the *near*, not far, West he can still be found within our limits. Mr. Edmund Ruffin referred us when we mentioned the subject to him, to the old Farmers' Register* in which they are spoken of as existing in Nottoway, and in Surry county, near Cabin Point, on the James River, about 50 miles from Richmond. Another gentleman informs us that they are very troublesome in Sussex and Southampton counties, both penetrated by the Nottoway river.

Can any of our correspondents suggest a remedy? Traps, which in 1838, were largely imported into Petersburg and thence distributed among the infested farms, seem not to have answered, since now, 17 years afterwards, we hear the same complaint.

FRANK G. RUFFIN, ESQ.,

Editor of the Southern Planter.

Dear Sir—In reply to your inquiries in regard to the "propriety of substituting wide for narrow beds in low grounds," I will briefly give you the result of my experience and observation, and refer you to Mr. E. Ruffin's full and satisfactory Essay on the subject, (embraced in the two volumes lately published,) for the particulars and reasons why the wide beds are preferable to the narrow. By this Essay, and the experience of my uncle W. B. Irby, Esq., I was induced to change my narrow into wide beds, and have never had cause to regret it. My low grounds lie on Little Nottoway River, and creeks and branches running into it. The land is *allu-*

vion, and generally not very difficult to drain. It is cultivated mostly in corn and oats, and but little in tobacco. Formerly the beds were from 11 to 15 feet wide. These I levelled down, and threw the land into beds forty feet wide. All of my flat land is now laid off in this manner, and I have been highly pleased with the result. In addition to what Mr. Ruffin recommends, I cultivate my land across the beds. The reason why this is done, is, to get the surface water in the water furrow as soon as possible. By so doing the water has only to run from one to twenty feet before it reaches the furrow; whereas if the rows of corn run the length of the bed, it would not reach the furrow, except by pereolation, until it reaches the foot of the bed. It is a general practice with us to cultivate our corn on low-land, in part, with the single "turning plow," and little extra trouble is required to throw the loose dirt out of the furrows.

It is seldom practicable to get the beds into proper form and the furrows sufficiently deep at the first operation; but two or more rotations will bring them right. Caution must also be observed to prevent the beds from becoming too much crested, or too high in the middle. By a proper system of *under-draining*, united with the wide beds, flat lands can be more profitably cultivated than with the narrow beds. Such is the experience of every farmer of our acquaintance who has tried both.

Mr. W. R. Bland of Nottoway, was one of the first in the county to try the "wide-bed" system. He says: "A ten years experience confirms me in the belief that wide beds are greatly preferable to narrow. Any one who will try it will soon see, that with the same plow the wide bed can be thrown much higher than the narrow one. It diminishes the number of water furrows, which facilitates the plowing, gives two or three additional rows of whatever crop may be cultivated, and diminishes by about three-fourths the trouble of grading and emptying the water furrows. It saves the necessity of head and foot beds, and keeps the extremities lower than the body of the bed; for on a wide bed you can and ought to plow across the end, throwing the dirt from the ditch to the bed. My practice has been to run my rows, in cultivating, at right angles to the direction of the furrow; yet if they are run as usual, I believe the wide beds will still be found to be greatly superior to narrow, though of course the surface water would not so rapidly flow into the water furrows, as where the rows run across the beds."

If you deem the subject of sufficient im-

*Vol. v., 253, vol. vi., 174.

portance, you would do well to republish the Essay above alluded to.

Yours truly,

Nottoway, Va.

RICHARD IRBY.

March 13th, 1855.

P. S.—You will deem my situation a very peculiar one, when I tell you that one of the greatest hindrances I encounter in keeping my flat land dry, is *dams* made by beavers. I would not err much in saying that I have had as many as twenty dams on my land, which are rebuilt as fast as I pull them down. The courses of large branches have been changed and the whole flat land inundated in some instances, and not satisfied with branches, the *community* has become so large as to put a dam across the river, selecting a rock foundation; which dam no freshet will remove. This would not appear so strange if the banks of the river were not cleared; as it is there are only a few straggling trees for a mile or further. A fence offers but little impediment to them, as they soon out a hole through. If you or any of your readers can suggest a practicable mode of getting rid of them, you would confer a favor on me, which can be communicated privately or publicly, as deemed best. I suppose but few are suffering from the same cause.

SEYMOUR'S BROAD CASTING MACHINE.

See the advertisement of this machine as well as Mr. Seymour's Grain Drill, in the advertising sheets of this paper. We were so much struck with the operation of this machine on Col. Randolph's farm where we had an opportunity of seeing its capacity tested that we ordered one at once. Last fall, from causes not necessary to mention, we found it out of our power to operate it. But we are so perfectly convinced of its great value in efficient working capacity, cheapness, durability and simplicity of construction that we do not hesitate to recommend it to the public, a thing which it is known we do not often venture upon. But let it be remembered that it is a *machine*, and therefore will not take care of itself. We believe, as Mr. Stabler of Maryland observes, that very many of the failures of machines arise as much from the ignorance or unskilfulness of those who operate them as from defects of the machines themselves.

This machine will not sow damp guano or wet lime to advantage. No machine will; though that merit is claimed for some of them; but it will sow damp plaster (though it should be dry when sown by a machine,) better than plaster of the same consistence can be sown by hand.

Though not agents for this or any other machine

we will gladly aid those who wish to contract, but as any one can manage that matter for himself by consulting the advertisement, we hope the trouble will be saved us.

We have induced Mr. Seymour to promise to have a supply for the fall seeding of wheat in Virginia and those who apply in time can get an implement, which, having once tried it they will not afterwards, we think willingly dispense with.

With proper care we are well convinced that with trifling repairs this machine will last twenty years on a plantation of ordinary size; but it must be properly taken care of.

We very much regret that the accompanying letter of Mr. Rives, introducing the interesting communication of his son, T. R. Rives, the conclusion of which is published in the present number of the Planter, should have been accidentally omitted, thereby giving a very awkward and abrupt appearance to the article:

For the Southern Planter.

CASTLE HILL, 25th January, 1855.

My Dear Sir :—The accompanying letter on the Horse has been addressed to me recently by my son Francis, as containing the result of observations and inquiries which he pursued very closely and earnestly during a tour he made last summer and autumn in England and France. You will perceive that, like myself, he is quite an enthusiast on this subject, and warmly enlisted in the cause of improving our native breeds. Supposing the information he communicates to me would not be without interest and utility to many of our agricultural brethren, and knowing there is nothing he has more at heart than to be useful, in however humble a degree, to his native State, I have concluded to place the letter at your disposal for the columns of the "Planter," as his contribution to a branch of rural economy which, I am glad to observe is beginning to attract the general and earnest attention due to it. Lest it may prove too long for insertion in a single number of the Planter, it has been divided into two parts adapted to publication in two successive numbers, if that should be deemed by you more convenient and appropriate.

I remain, my dear sir, with great respect, very truly and faithfully yours,

W. C. RIVES.

F. G. Ruffin, Esq., Ed. So. Pl.

BUTTER.—In churning cream, add a lump of butter to the cream before commencing, and the butter will come in two-thirds the time it would without.

For the Southern Planter.

IVY CREEK, March 20, 1855.

Dear Planter:—In answer to M. R. K. Esq., of Frederick, I drop you a few lines on the culture of corn, and hope he will do me the favour to try my method on a few acres, and state the comparative result.

He plants four feet each way—*cui bono*? If the lands in Frederick cannot bring corn with less distance, they are not so fertile as they look. Let Mr. K. try four and a half feet by two, drilled, two stalks in each hill, where the land is good, and two and one alternately when not so good. Run the rows on a level, with a two horse shovel, a coulter attached; cover with a new ground coulter; work the crop with a side wiper, the best tool I have seen for the purpose, and frequently described in the Planter; (I sent C. T. Botts, Esq., a drawing of it, but they made it at right angles; cannot you give us one in the next number?) It finishes a row at two strokes, and the best crops I have made were worked but twice with the horse; the hoe following with but little to do the second time.

I am aware of the prejudice against hoeing corn, yet feel sure it is of great utility. Mr. K. can spare ploughmen to do the hoe work, graze his horses, save grain, and make more crop from less land. My horses are usually fat, and eat but very little grain after our corn is planted; we turn them out at night, get up at two or three in the morning, work them until 12 o'clock, take up another set, and work until near dusk; the ploughmen usually give a few ears of corn while they are eating dinner. Two sidewipers, with four good horses, can work with a fair season from 80 to 100 acres of corn. We run twice over always; some seasons require thrice; but generally the third time we run but one stroke in each row. I believe there is more corn lost, by too much work, and a want of stalks on rich land, than would build all our Rail Roads in 10 years. Rich alluvial land in Virginia has rarely over half the number of stalks it would bear to advantage. Dr. Morton is the father of this theory, it is said; if so, honour to his name. I have tried it closer and closer for many years, and now believe that No. 1 flats, well drained and ploughed, free from chinch bug, can bring from 60 to 100 bushels of corn any ordinary year. We plant from $3\frac{1}{2}$ to 4 feet by from 15 to 18 inches, two stalks to the hill; and on the *best* land *thicker*. I wish Dr. Morton would come out, and write thus to bring him.

The old idea that corn would burn up from thick planting, holds not on my flats. Mayo

Cabell, Esq., made a great crop planted $2\frac{1}{2}$ feet by 6 inches; as well as I remember, it was reported for the Southern Planter.

With the best wishes for you, the Planter, Mr. K. and the Farmers all over the world,

Your old friend, W. W. GILMER.
To F. G. Ruffin, Esq.

For the Southern Planter.

ICE HOUSES AGAIN.

Mr. Editor:—Your printer made a mistake in substituting "high roof" for hip roof, in the printing of my last communication. The hip roof, is a low roof, extending around the house, so as to prevent the rains from soaking into the house.

Recurring to the subject of fixed air, or carbonic acid gas, in ice houses, wells, &c. I would add, that a pine bush answers best, for being run up and down, wetted with lime water, and that it may be well to throw in quick lime to neutralize the gas.

Frequently more ice is lost, by too often going into the house, than would serve a family. Every house-keeper who has an ice house ought to have a large box or refrigerator. The box answering just as well, if it be made so that finely powdered charcoal, or some other non-conductor, can intervene between the ice and outside of the box. One may be thus constructed upon a very cheap plan. Take two boxes, one about two inches or more longer than the other, then pour in the powdered charcoal, 2 or 3 inches deep, in the larger box, next put in the smaller one, and cram down the powdered charcoal at the sides and ends; a strip will be necessary at the top to keep the charcoal in place. The lid to the large box should be fixed in such a manner as that it can be filled with the charcoal, and it may be well to bore a hole in the bottom, or in one end or corner, with a tube to let off the water from the melting ice.

With such a fixture as this there can be no need of going into the ice house more than once or twice a day. T. H. A.

HOW TO SHOE A KICKING HORSE.

Rein him up with the bearing rein or the bridle rein drawn over the saddle; then take a forked stick, each end of the fork to be fastened to the bit and the other end secured at his breast or to the girth, so that he cannot lower his head from a *high* position. They say, he cannot kick then. It is very easily tried and costs nothing.

Rowe's Prize Crusher advertized in the Planter of this issue, can be seen in operation at Mr. Lewis Hill's Mill.

Communicated through the Agricultural Commissioner, and ordered to be published.

ON DISTEMPER AMONG CATTLE.

There are some subjects intrinsically important, both as regards individual and public interests, which, at the same time, are dry and uninteresting. A man desirous of doing good may feel himself called upon to communicate to the public, observations, which his position in life may have enabled him to make on such matters, whilst he is oppressed, with the thought that the whole effort of writing may be unpalatable to himself, and its result disgusting to his readers, if any be found. Such a writer has at least the consolation of reflecting, that although the path of duty may often be steep and rugged, it is sound and safe, and leads the persevering to destinations where the flowery and delusive paths of pleasure never go.

Apologies are generally unpleasant, except to him making them; but I must be permitted to say, that I approach this dry and intricate subject with no books within my reach to aid me in the investigation. Although my personal acquaintance with the disease has been expensive, in a great loss of cattle, it is far from having been sufficiently extensive to authorize me to take the position I now occupy, if one more suitable could be found to perform the work. But I have promised that "I will try."

I will premise, that I have but little to offer regarding the treatment and cure of this disease. Observing that a great majority of its severer cases, and all that I ever saw with one particular symptom—bloody urine—proved fatal, I have thought it more important to investigate the laws of contagion, governing its progress through the country, and, if possible, to discover the means of prevention, than vainly to search after the sanative treatment of a disease so often incurable, and in which the sufferers, before they were known, to be ill, had, to use a common phrase, been already "struck for death."

This disease made its appearance in Prince Edward, my native county, nearly sixty years ago. It was brought to within about two miles of my father's residence, by a drove of cattle from North Carolina. Many of this drove died, and destruction among cattle was spread all around. Great anxiety was excited through that region, and observing men began to notice the peculiarities of the disease. Unfortunately, from ascertaining that all cattle took the distemper which grazed on the grounds on which the drove had been, and that other grounds also were contaminated as the disease

spread around, a notion sprung up that in some strange way a permanent and immovable poison was rooted in the ground. It is true that the ground, or the grass on it, may become a medium of conveyance to other cattle, and I doubt whether even this step towards its development would have been made in an old and thickly settled country, where even the intelligent had long looked upon its propagation as an inscrutable mystery—a matter like the wind, which "bloweth where it listeth." The writer hopes to explain how it is, that the ground becomes a medium for its extension among sound cattle, and to suggest means for its entire abolishment from the country. I moreover believe that in a new and sparsely inhabited country, recently invaded by such a plague, although there may be fewer cases for investigating the causes of contagion, yet there will be less liability to error from confounding one cause with another, than where the number is so great that it is almost impossible to trace to the right one. During the active portion of my professional life, I almost envied the city physicians their many opportunities of scrutinizing into the laws of infectious diseases. I have since been induced to believe that these very abundant opportunities lead sometimes into confusion and error. A watchfully observant man, with cases "few and far between," and not entangled amongst a multiplicity of others, has a better opportunity of making sure progress, although it may be slow.

There is strong probability, amounting almost to certainty, that this disease, in identity, is really "the bloody murrain" of England and Scotland. I have not access to books affording such a diagnosis of murrain as will enable me to identify them. The only detail of symptoms in my possession of that European disease is given by Dr. Willich, in his *Domestic Encyclopedia*; and from that is left out the most threatening symptom of our disease called "distemper." I allude to bloody urine. Dr. Willich says, "murrain is a contagious disease, incident to cattle; it is known by the animals hanging down their heads, which are swollen; by short and hot breathing; palpitation of the heart; staggering; an abundant secretion of viscid matter in the eyes; rattling in the throat; and a shining tongue." Most of these symptoms generally occur in our distemper; but the most unfailing diagnostic, so uniformly accompanying the disease that it deserves to be called, in medical phrase, pathognomonic, that I have witnessed, is a morbid appearance of the urine, which either becomes bloody, or assumes a dark

greenish color, resembling a strong solution of copperas. As I said before, I have not known a single recovery, where the urine was bloody. Multitudes get well, either with or without medicine, when it is only dark greenish, and some few hardly appear to be sick at all. If it could be established that bloody urine accompanies the bloody murrain of Europe—which I suppose to be doubtless, from the very name of the disease—and with similar fatality, it would not only go far towards proving identity* with what we call distemper, but it would give force to a belief which I have long held, that infectious and contagious diseases, whether of men or brutes, are the same in all latitudes; while atmospheric diseases vary with climate and locality. This law of infectious diseases compels smallpox to be the same in Quebec that it is in New Orleans. Its cause being a specific virus, unconnected with the atmosphere, it is little affected by atmospheric influences. I will not, in deference to common, or even professional opinion, call that an atmospheric disease over which the atmosphere exerts little or no influence. An attentive and searching investigation into the laws of infection and contagion, is so exceedingly important, that I trust I shall be pardoned, if I afford what may appear to be undue prolixity to this portion of the subject. The annals of surgery warrant us in feeling undoubting confidence that the virus of hydrophobia will not affect the nerves of the part bitten, previously to the eighth day after the bite; so that ample time is afforded both to ascertain whether the dog biting was certainly mad, and to procure the best surgical skill for the thorough extirpation

of the wound. In many diseases, whether infectious or contagious, it is often desirable to know exactly the time transpiring between exposure and attack. For example, should a man have a cow which had strayed into infected commons, or other place of exposure, he would be glad to know how long he should keep her in quarantine, or in seclusion from his other stock. Nature has her laws for the regulation of all earthly things, and marked with wonderful uniformity of action. She reveals not her secrets to the careless, the presumptuous, or self-conceited observer; but to the modest and patient investigator discloses them generously. I wish that I could specify precisely the time intervening between the exposure and attack in this disease. I did ascertain it to my satisfaction some twenty odd years ago; but not then feeling the importance of treasuring up every such particular, I suffered it to slip my memory. Perhaps some other writer may be able, with accuracy, to furnish this information. I admit that countervailing causes may suspend the action of a virus in the animal system, in some rare cases; but where no such causes interfere, I believe there is perfect regularity in this matter.

When I had daily opportunities, during the hot months of summer, of making observations on the phenomena accompanying distemper among cattle, I noticed the following facts. There were several farms, which I had to pass almost daily, on which distemper raged sadly, and the diseased and dead cattle would be lying in the corners of a dividing fence, while the sound cattle of a neighbor would be on the other side of the fence, bellowing the obsequies of the dead, with their noses almost touching their carcasses. I observed, moreover, that dogs carried the bones, with flesh on them too, from the diseased to the healthy side of the fence. From these facts, as no disease accrued to the sound cattle, the inference was fair, that distemper is not contracted by proximity to the diseased, the dying, or the dead. Further, these two descriptions of cattle remained, thus near to each other, in the standing pastures of their respective owners, for a number of years, with perfect impunity to the sound portion. I frequently sent my oxen into the most exposed situations, without injury, after seeing that they were securely muzzled; others did the same. The foregoing inference was thus strengthened. Facts of the following kind were also very common. Gentlemen bought lands on which distempered cattle had long been living and dying; enclosed them in winter, the only time that a tobacco maker has to do such work—stocking

* Being requested to write the above article by a member of the executive committee of the Virginia State Agricultural Society, I felt that I had nothing to urge, except a scheme for preventing or even exterminating the disease in question, by cutting off all possibility of extending it in the only way in which I think it communicable. I did not therefore pay much attention to its diagnosis, as—being the only destructive pestilence among cattle in all this region—its symptoms are generally well known. Since writing the article, I have been able to procure "Youatt on Cattle," and find the symptoms of "murrain" as detailed by that fine writer, almost identical with those in the disease which we call "distemper." It is true, there are discrepancies for which I cannot account. In our "distemper" there is, so far as I know, no hemorrhage, except from the bladder; and whilst I have not heard of tumors and abscesses, I have uniformly found the skins, in all the worst cases, destroyed by gangrenous action. There is, moreover, another difference. Youatt represents murrain as committing its greatest ravages in winter and spring; our distemper has not been known to occur between the first of January and the last of June.

them during winter with sound cattle, which afterwards enjoyed perfect freedom from distemper. After knowing this to be repeatedly done with safety, I cut off a portion of an infected farm in winter, procuring sound cattle, and pasturing them on this secluded portion of land, with perfect immunity from the disease. Here now is another step of progress, and fair ground for another inference: That however much land may have been infected in summer, it will be cleansed by the influence of winter. Well, we have seen that the disease is not induced by propinquity to the diseased and the dead; we have seen that sound cattle may safely graze on land on which no distempered cattle, nor such as have been distempered, have grazed, during the same summer. Where, then, shall we look for the cause of infection? With the further fact fully known and believed, the conclusion, as a third inference, seems almost irresistibly forced upon us, namely, That the taint of infection is imbibed by their taking the saliva of tainted cattle into their mouths, from the grass on which they have mutually grazed, or licking themselves with their tongues after having been licked by such cattle. The law of nature, fully believed, in other matters, is, that she is economical in the use of means, and chooses to adopt but one mode of effecting the same object. Now, if the disease be certainly induced by taking tainted saliva into the mouth, it seems hardly rational, when no other mode of infection has been discovered, to be still searching for one, or to adopt the old notion of the superstitious regarding murrain, that it was all the malignant work of fairies and witches.

We have drawn long ago the three following inferences, which, in so far as our slight experience immediately before our removal from a distempered region could do so, were supported by it. 1st. The distemper is not communicated by proximity, however close, to tainted cattle. 2d. The ground cannot be permanently poisoned by such taint, but is disinfected as soon as time is allowed for the saliva of the tainted to be cleansed from the grass, by the rains, snows and frosts of winter. 3d. This malady is contracted by sound animals taking tainted saliva into their mouths, and in no other way. We have a fact, perfectly analogous, regarding the distemper among horses. A distempered horse may travel daily by the side of a sound one, or he may stand day and night, in an adjacent stall, without communicating his disease. But if he eat from the same manger, wear the same bridle, or if in any other way his saliva gets into the mouth of the sound horse, the disease

is certainly contracted. If asked, why? W reply, "nature has so ordained." Further, horse, which has apparently recovered from the disease called "glanders," will infect ever horse into whose mouth his saliva may get. If asked, why? we give the same answer.

Satisfactory as the foregoing deduction were to the writer, he has found it difficult to induce his friends to ponder and carry them out practically. In his own experience, he was resolved to test their truth, and endeavored to ascertain whether a distempered farm might not be purified from the pest by pursuing their indications. But his experiment and further intercourse with the disease were both interrupted by his removal to Cumberland.

The unequivocal establishment of our third inference is so important, that we must beg leave to dwell a little longer on the laws of contagion controlling the spread of this disease. The best confirmation of a doctrine of such a character is generally that deduced from facts. A gentleman possessing a large herd of cattle, finding that some infected animals, having been distempered several years previously, had made an irruption into his pasture, and some of his cattle contracted the disease, ordered that all the sufferers be put into a well enclosed lot, and that they should never come out of it alive. Most of them died, and being a law-abiding man, he buried them very uselessly, except to show a temper of obedience to law—six feet deep, unskinned. The remainder of his cattle were very closely watched, that if any symptoms of disease appeared, they might forthwith be transferred to the lot of diseased stock. The few which recovered were fattened and killed in the lot for beef. There was no more distemper on his farm afterwards. No man, familiar with the disease, can doubt but there would have been had the cattle which recovered been permitted to live, and graze among the untainted. Another gentleman, who had long enjoyed exemption from the disease among his stock, although surrounded by neighbors with distempered cattle, saw at a distance a lawless man ride through and leave down the fence separating his pasture from perhaps the worst poisoned commons I ever knew. In a few days he lost every cow he had—about twenty—although the cows were driven back with all practicable dispatch, and had not progressed more than fifty yards into the common. When asking, why such cattle never took the distemper before? I have been answered, "Why, Sir, the ground in their pasture was not poisoned." I could only answer back, "What poison could they get on the com-

mons, besides the saliva of infected cattle? It is well known, that they might have travelled over that ground every day, guarded by muzzles, with impunity, if no tainted cattle were permitted to lick them." I once saw the fence between my sound and infected cattle left down by a similar intruder. Before the thing could be rectified, a valuable ox passed through the gap, grazing, but progressed but a few yards before he was restored to his proper place. A few days after this—I regret that I forget how long—I ordered him to be yoked, to do a little hauling. My carter, possessing that most valuable gift of discerning slight changes by his eye, said to me, "That steer ought not to work, Sir; he has the distemper coming." "How do you know that?" "I know by his eye, Sir; it looks like their eyes always do when they have that complaint." I—for I profess that I also try to be observant in that way—examined his eyes closely, without discovering any thing wrong. I, however, directed him to be unyoked; and though he had walked briskly, and had a lively appearance just before the yoking, he died within an hour—one of the most malignant cases of distemper I ever saw. I can conceive of no cause for his taking the disease, but from his having gotten tainted saliva in his mouth during the short time that he was exposed.

As regards the treatment of this disease, the writer has already confessed great poverty of knowledge.* For costiveness, he has usually

* Meeting with my friend Dr. Abner Crump, of Powhatan, during the agricultural fair, he communicated to me his mode of curing distemper among cattle, and his reasons for it. Considering the disease to commence in the membranes of the brain, and to be transferred throughout the lining membranes of the cavities and cellular structure of the skull, he carefully examined the horns of the diseased cattle; and when finding them cold, he bored into them with a large gimlet, and injected vinegar and water. The first rush of atmospheric air into the bony cavities, often caused a gush of very fetid matter to run from the nostrils, or it was more slowly brought away by the injections of vinegar and water. If the diseased cattle are hornless, or if, having horns, these are not yet sufficiently affected to produce coldness on feeling them, the Doctor, instead of boring them, throws the animal with ropes, and bores into some of the large cavities of the skull, such as the frontal sinus, between the eye and horn, or the poll at the top or back part of the head. The integuments are carefully dissected away before the boring is commenced. No one, of course, would attempt this operation, without previously examining a skull, to ascertain precisely where to bore. I would judge that a carpenter's wimble, if at hand, might be a better implement than the gimlet, as making a smoother perforation, and causing less pain to the animal. I thought proper to append this note, as the plan

administered about three gills of spirits turpentine, or between one and two pounds of Glauber's salts. When there has been great heat, he has in a few cases thought that much relief was afforded by rubbing about the head and along the spine freely with large lumps of ice. For the comfort of the poor sufferers, it is important to protect them against the attacks of little grey biting flies, which congregate about them in amazing numbers. This may be done by putting the sick animal in a dark house, or, when such house is not at hand, by piling on them strong-scented weeds, leaves, and small brush, whose odor may either drive off the flies, or so disguise the smell of the animal that the flies cannot find him. The poor patient should also be shaded, if an arbour has to be erected for the purpose. Dr. Willich, after telling that murrain raged at a certain time, says, "The remedy then employed, both for its prevention and cure, consisted in a mixture of equal parts of gunpowder, salt, soot, and brimstone; one spoonful of this composition was given for a dose, and washed down with warm water." In one of our worst cases of distemper, I would just as soon rely on one spoonful of warm water alone, or of anything weaker, if weaker could be found.

Concerning the disease itself the writer has written enough, and perhaps more. There are some some matters which he might notice by way of addenda.

As a fact connected with this subject, and with natural history, we will remark, that the same drove of cattle which brought distemper into our region, brought also multitudes of a species of greyish brown ticks, larger than such as we had seen before. They appeared to be viviparous, and brought forth their young while playing the parasite on the skins of the cattle, as several young ones might be seen around the mouths of the old ones; and the poor animals were soon shingled over with these annoying vermin. It was dangerous to

recommended by Dr. Crump affords hopes to those who wish to save the lives of their diseased animals, so rational, and far superior to the empirical nostrums in common use, and founded on authority so high and reliable. The Doctor informed me that it had uniformly succeeded when resorted to in time.

There is a disease in our western states, among horses, termed "big-head," consisting of inflammation in the lining membranes of the bony cavities of the face. It is there cured by placing the muzzle of a rifle obliquely against the unnaturally projecting process of the bone, between the nostril and the eye, and by firing the gun, blowing off a part of the bone. This they call "shooting for the big-head." I have cured this disease, by boring into the cavity with a wimble.

a young colt or calf to contract them, unless special attention were turned to getting them off. These ticks were first observed on the cattle of the drove, and to spread from them through the surrounding region. So strangely is popular opinion inclined to leap to conclusions, that they were at once pronounced to be the harbingers and the cause of distemper, and those who saw the vermin on their cows, with great concern expected also to be visited by that calamity. The ticks, however, soon spread through the greater part of middle Virginia, and for aught that I know, the tide-water country too, without *vaccinating* with distemper as they went, and now, all who know any thing of their advent believe that they merely rode on cow-back in their immigration. From the power of climate, or some other cause, they propagate much less numerously than at first, and in most places scarcely inflict any annoyance. This remark may also, in most places, be applied to all the species of our ticks. The seed-tick becomes extinct wherever all the cattle are confined in pastures.

Before closing, we feel bound to say something about the extermination of this destructive disease, and to call upon all who are able to afford aid in effecting so desirable an object. We have distinctly declared our belief that it can be done. The very fact of enclosing cattle has done this on some farms, and the desolations of the disease have been greatly diminished, in the region so often alluded to, as we believe, by cessation, in a great degree, from the old practice of general grazing on commons. A man who wishes to deliver his herd of cattle from this terrible malady has only most watchfully to segregate such of them as he knows to have been all their lives clear of the disease, from such as may have experienced it, during the time intervening between nearly the last of June and almost the arrival of Christmas. The most speedy and sure way would be, in some manner to dispose of all his cattle that could be at all suspected, during the fall season, get a new set, after the winter had cleansed the grass—about Christmas, or a little after—and secure them, as far as individual exertions can do afterwards, from any possibility of contamination. But after all his trouble and expense, he is liable to have the disease brought back upon him, and perhaps with increased violence, by the irruptions of marauding cattle which graze upon an adjoining common. Thus he is compelled to risk a thousand dollars or more, that his neighbors may have the privilege of grazing a few cattle on poverty-stricken

outlying lands, that do not belong to them. The legislature alone can place it in every man's power to exterminate the disease from his farm, by enacting a law, with effectual penalties, forbidding all cattle to run at large. But great bodies are said to move slowly. We would call upon the executive committee, and the whole Agricultural Society, and every member—upon the editors of agricultural papers, and the whole corps of editors, to hurry them.

This subject increases greatly in importance as so many costly and blooded cattle are coming into the State. The writer begs all purchasing such to be watchfully cautious, to buy none which could be tainted, to transmit them from place to place between January and June, and if circumstances require that they should be moved at the wrong season, to guard them well with muzzles while passing through distempered regions.

W. S. MORTON.

Cumtarian, July 10th, 1854.

Extract from Correspondence.

SMUT IN WHEAT.

I cannot withhold from you the pleasure I feel in seeing announced through your paper the true cause of smut in wheat. I have over and over again concluded to write you on this subject; but as my experience is not founded upon so many experiments as your correspondent, the meed of praise is certainly his due. I allude to the grub contained in the smut-ball, and that grub changing into small grey and black bugs, which may always be seen on the heads of wheat where smut is commencing.

Very Respectfully, B. F. EPPES.

The above alludes to the valuable article of our friend, Col. Braxton Davenport, of Jefferson, on the cause of smut in wheat.—Ed. So. Pl.

From the N. Y. Economist of March 16th.

GRAIN.

A favorable change in the weather since our last publication has been without influence on our Wheat market; receipts continue light, notwithstanding prices have reached a point never before known in this market, at least not during this century, and as our stock is daily diminishing, higher prices appear inevitable. The rapid advance in flour here and in the interior, does not draw out the supplies, and the conclusion to be drawn from it is, that there is little left in the interior even for their own trade. From the Upper Lakes we learn there is now about a million

of bushels accumulated, and but little addition can be expected to this the present month, as the consumption has materially increased, and the extravagant prices current on the seaboard will stimulate production immensely, and the demand for seed wheat is likely to exceed any previous season. The winter wheat is represented as looking finely at the West, and little apprehension is felt of its being Winter killed. Our main dependence for supplies is upon Michigan, Illinois, Iowa and Wisconsin; in the new States it is difficult to say how much will be drawn out. The high prices current in the Mississippi Valley will draw out the surplus of Iowa, and a good inquiry is anticipated at Chicago for the same destination. From St. Louis we learn prices had advanced to \$2 for white wheat—a point never before reached in that market; and with the opening of the upper rivers, only moderate receipts were anticipated.

From Canada we look for considerable supplies, but the advices thence are very conflicting. The bulk of the wheat is still in the hands of the farmers, and consequently it was very difficult to arrive at the quantity to be drawn out. From all the information we have obtained since our last, the prospects for low prices the ensuing season appear to lessen daily, hence nothing can be expected of importance for export.

It is pretty conclusive proof of a dearth of supplies when nothing of moment is drawn out from the interior even at these very extravagant prices. The wants of our own millers compel them to pay the current high figures for making Patent Self-Raising Flour, &c.; these prices could not be paid for making Extra brands of Flour, this being lower than the wheat, consequently the former must advance to correspond. The arrivals from the South continue limited, and we learn little can be expected thence after this month. The extreme prices demanded deter millers from buying freely. The absence of later intelligence from Europe has added somewhat to the dullness that has prevailed, although our market is so far above theirs that we cannot expect to be influenced by them at present; one thing is quite certain, they must look elsewhere for supplies to carry them to next harvest. At the close a good demand prevailed for milling, and the most inferior descriptions have been disposed of to-day at \$2 03a2 20 per bushel. The reduced stock gives holders a decided advantage at the close. The sales embrace 11,600 bushels Common to Good Southern White at \$2 20 a 2 35; 400 do. Prime White Wisconsin at \$2 40; 2,000

do. Good White Canadian at \$2 40, duty paid; 3,000 do. very Smutty do at \$2 03, and 250 do. Prime White Genessee at \$2 70. This we believe is the highest price ever paid in this market, at least during this century.

THE JOURNAL OF TRANSACTIONS OF THE VIRGINIA STATE AGRICULTURAL SOCIETY.

The first volume of this work, including the transactions of the society from its organization to the close of the first annual exhibition of 1853, is now complete and can be purchased at the book store of J. W. Randolph, of Richmond, who has them on sale, and also at the office of the Secretary of the Virginia State Agricultural Society.

The price is fifty cents a copy, and when they are ordered by mail, the postage, amounting to nine cents or stamps to that amount, must be sent along with the price of the book, to ensure attention.

The Executive Committee have bought this work from Mr. Bernard, who published it on his own account, and offer it as another of the successful results of their labors in behalf of agriculture. Probably no volume of its size abounds more in practical matter of interest to the farmer. The essays alone, which have all, it is true, been published in the Southern Planter, but have not probably in ninety nine out of one hundred instances, been preserved, cannot be found anywhere else, and yet they form a very valuable mass of practical Agricultural writing.

The volume contains 220 pages, about the size of the Planter, bound in paper, and can be easily sent by mail.

Recipe to prevent Moles, Cut Worms and Birds from destroying Seed Corn.

Mr. John G. Turpin, of Clover Dale, near Petersburg, furnishes at our request the following recipe, which we feel no hesitation in recommending, particularly as Mr. Turpin says, that with him and those who use this compound the trouble is to thin the corn, and not to replant it, which is never necessary.

To each bushel of seed corn add one gallon of coal or gas tar; stir in the corn until it is well coated and saturated; then take three parts of wood ashes and one of fine salt—unleached ashes are best—mix them thoroughly, and roll the tarred corn in it, until each grain is well coated. Prepare no more at a time than can be planted in 2 day.

For the information of those who may wish to try this experiment, we will add, that we have just enquired at the gas works and find the price of gas tar to be merely nominal, say 25 cents for ten gallons, exclusive of the vessel that contains it, which may be selected by the party ordering it, or his commission merchant. In this connection read the article in this number headed, "Gas Tar in Horticulture."

For the Southern Planter.

USEFUL HINTS FOR VIRGINIA GARDENERS.

BY E. G. EGGEING, FLORIST.

April, the second of the spring months, gives full employment to all the hours and energies of the gardener. The weather is usually mild, and the frequent showers and the genial rays of the sun, not only cause the useful plants to grow, but also bring out a plentiful crop of grasses and seeds. To keep these under, lest they hinder the growth of the vegetables, must be the first great concern. Every gardener should have as the rule of his conduct the homely rhyme:

"The more we hoe
The more we grow."

A few rules of treatment for the leading vegetables, is all that we give at present.

Asparagus.—The beds should be kept clear of weeds, etc., and the earth stirred frequently so as to be kept loose and light, especially where it is inclined to bake and harden after rains. This will greatly promote the growth of the buds, which are already out in favorable locations. During the month the buds will be in condition for cutting. Care should be exercised in cutting, to cut only the larger buds leaving the small ones that often make their appearance.

Beans.—Between the first and the fifteenth of the month a full crop should be planted. Lima beans should not be put in until between the fifteenth and last of the month. It is the better plan to put the poles in before planting the beans, and be sure to put them in deep enough, lest they be blown down by the strong winds. It is well, too, to plant beans enough as they will many of them rot.

Celery.—If the plants are up then free them of weeds.

Cabbage.—From the middle of this month to the first of the next, is the period for sowing seed, to rear plants for fall and winter cabbage. It often occurs, that plants for this purpose are scarce. They are liable to destruction from insects and drought, but a proper cultivation will ensure a sufficient supply. The following directions may be safely followed, with the most satisfactory results:

To make a plant bed for this season, take a piece of poor ground in preference to that which is rich, and break it very deep, and pulverize thoroughly. Two reasons justify the selection of poor rather than rich ground. First, because the richer the land the more likely the plants are to suffer from the ravages of insects; and secondly, if plants are transferred from richer to poorer soil, they are checked in their growth for the time. The bed may be larger or smaller, according as a greater or less number of plants are wanted. Two thousand, or more plants may be had from a bed twelve by sixteen feet. The seed may be sown in drills or broadcast, at pleasure. If the earth is moist at the time of sowing, or should there be rain soon after, the plants will make their

appearance in two or three days. The danger from drought may be easily avoided by irrigation. If the soil is dry when the seed are sown give plenty of water, with the watering pot and strainer, cover the bed with planks raised few inches above the surface of the soil, and remove the boards so soon as the plants make their appearance. If left covered for a day, the plants will likely be ruined by over forcing. Supposing the plants up they are immediately liable to attacks from insects. To prevent this the bed should be sprinkled with *air slack lime*, directly after the seed are sowed and the application renewed the moment the plants appear. This should be done every eight or ten days, for three or four weeks, and it should be put on early in the morning while the dew is upon the plants. It is vitally essential that the plants be thus protected in infancy. *Tobacco* will serve the same end and is perhaps better than lime.

We have been thus particular and minute because persons so often fail to get a supply of cabbage plants at this season, when nothing is easier, with due attention to them while they are very young. Erroneous ideas concerning their culture is at the bottom of nine out of ten failures which take place. To many persons the views submitted will be novel, but we are sure an experiment will satisfy the most sceptical of their soundness.

The best kinds are the large Bergen, Drumhead and Savoy.

Egg Plant.—The process of hardening should be continued, by raising the sash of the hot bed occasionally, as the weather permits. It is imprudent to remove them to the open ground this month.

Lettuce.—Those planted last fall, should be well hoed. Those sowed in March are now usually large enough for transplantation. So now the variety called the India Cape Lettuce which is the best for summer, as they start longer before seeding and are very tender.

Peas.—Sow Marrowfat pea for a summer supply.

Raddish should be sowed every ten or twelve days as they soon become pithy.

Potatoes.—Concerning this crop it may be well to say, that experience teaches us the lesson, that while to have them early and of good flavor the Northern Mercer is best for seed, these will not answer when they are kept for winter. These should be raised from roots grown in our own soils. If such as were planted last month are up, keep them clean.

Tomatoes.—About half in the bed may be removed to the open ground about the fifteenth of the month, and the balance reserved to supply the place of such as are killed. When put out they need some such support as a stick provided by them will afford. Lacking this they will probably be broken by the winds.

THE FLOWER GARDEN.

This month is the season for work in the department. Yet there is need of discretion and caution, lest by too much hurry injure

results rather than good. Many persons begin their work among the flowers far too soon. With the first warm summer day they begin loading the borders, stirring the soil about the plants and performing other processes, which might well be postponed. This is an evil and needs to be corrected.

It may be well to give our reasons for wishing change in this respect. A portion of the borders in our flower gardens, is almost invariably occupied by annuals, as Pinks, Phloxes, Verbenes, Portulacae, etc., which scatter their seeds when they reach maturity. From the seeds thus dropped by the plant, we get the best specimens of flowers. If, however, the border is worked in February, March or early in April, these seeds are disturbed and so kept from germinating, whereas by waiting until they make their appearance it is easy to dig around them, leaving the young plants to grow. Again, the plants we usually rear, such as fine Roses, Crape Myrtles, Pomegranate, &c., are what we term half hardy. If the soil be frozen early, it exposes the roots to the late frosts, which not unfrequently come, and destroy valuable plants. Even should they escape destruction, they are greatly injured. The young buds are blighted, the plant rendered sickly and the visits of a small green insect invited. Then herbaceous and bulbous plants, such as Peonies, Lilies, Tulips, Hyacinths, and the like, make their appearance about the first of April and any attempt to spade near them sooner is almost sure to result in injury to them, by the heedlessness or ignorance of the laborer.

For these and other reasons, we advise that the borders be not dressed earlier than the fifteenth of April. And we advise, further, that a fork with three flat prongs, be substituted for the spade. Previous to forking, let the border be well covered with manure that is well decomposed. Cow dung should not be used, but stable manure that has been removed from the stalls at least six months.

The usual habit in dressing borders is to pulverize the soil and by means of the rake to make it smooth and level. This delights the eye it is true, but is an injury to the plants. The fast fall of rain, succeeded by sunshines, hardens the powdered earth into a cake which hinders the ingress of air and sun rays, and prevents the heat from rising from the earth. The border is well broken with the fork it all the healthy growth of the plant requires.

Trimming.—It is now the time for trimming and pruning shrubbery, box, roses, &c., &c.

To Prune Roses is an easy matter, if the gardener understands his business. Indeed by one who will heed the hints we now propose to give can prove successful. The first thing to be borne in mind is that the only shoots which produce flowers are those *one year old*. Such as are older, as they produce nothing but leaves, are to be removed, unless in a case where flowers producing shoots are growing upon such as are two years old or

older. This is sometimes true. When all the wood more than a year old has been cut away, then the one year old shoots should be shortened. One-third of the entire length may be judiciously cut off.

These directions are intended to apply only to the finer varieties of Roses, such as Tea Roses, Bourbons, and hybrid Remontant. The older varieties such as were formerly common in our gardens, which bloom but once in the year, are not worth the trouble of cultivation, whereas others, which flower from May to November, can be had very cheaply and are not more troublesome. These plants are eminently adapted to this latitude, produce magnificent flowers and continue to delight the eye and the olfactory, until "boreas, rude blusterer," shakes the fragrant leaves from the parent stem.

We especially commend fine roses to our lady readers. No flower will so repay their care as this queen of the garden, and they can be had now at so little cost that we hold no female absolved from the obligation of introducing their bloom and fragrance into their homes.

FLOWER SEEDS.—This is the season for sowing all kinds.

DISCONTINUANCE OF AGENCY

My connection with Mr. N. August in an agency for the purchase and sale of real estate, ceases from this date. He will continue in it, and I can recommend him to those who may need his services. I am satisfied of his competency in the premises, because he has had the whole management of it from the commencement, my connection with it having been entirely nominal.

April 1, 1855.

FRANK G. RUFFIN.

RICHMOND MARKETS, APRIL 1, 1855.

APPLES—Va. \$5 per bbl. none in market.
BACON—City cured hog round, 99½¢, Western Sides (new) held at 8½¢, no old in market, would bring 7½a7½¢, new Shoulders, 7½a 7½¢, Hams, 10½a11½¢, Smithfield hog round, 9½a10¢.
BUTTER—Mountain 25 to 30 cts., Roll 20 to 25 cts., do Goshen 32½a35 cts., old and inferior, 3a10½ cts.
BEEWAX—25½a26½ per lb.
COTTON—8½a9½ cts. per lb.
COTTON YARNS—17a18 cts., ea. h. Cotton Cordage 20 cts., per lb.
CORN—We quote 85a87½ cts., per bushel; in small lots sales at 90 cts.
CORN MEAL—95c a\$1.
COFFEE—Rio 10½a11½ cts., Laguayra 11½ c., Java 14½ c., Mocha 15 c.
FLOUR—Stock light and receipts small. We quote country superfine at \$9½ to 9½, extra 9½a10, family 10½a11.
FLAXSEED—We quote at \$1.60 per bushel.
FEATHERS—Live geese 42 cts. per lb.
FISH—Herrings, N. Carolina, clipped, \$7 per bbl., Halifax, clipped, No. 1, \$6½; No. 2, \$4½. Shad—B. Mackerel, No. 1, \$20 per bbl., half bbls. \$11, No. 2, \$10 50, No. 3, large, \$5 50a6, No. 4, \$4 50a5.
GINSENG—30a35 cts. per lb.
GRASS SEEDS—Clover \$4 75a7 per bushel, Timothy \$4a4 25, Hard Grass \$1 25a1 50 per bushel.

GUANO—We quote \$50 from wharf, \$50 50 delivered, for Peruvian, Mexican Guano \$30a\$35.

GUNPOWDER—Dupont's and Hazard's Sporting, F, FF, and FFF, \$4½; Blasting, \$2,75a\$3 per keg.

HOOP POLES—We quote at \$7a\$8 per thousand.

HIDES—Slaughtered 6½ cents per lb., green weight; calf skins, green, \$1. No Spanish hides in market.

HAY—Sales from store \$1 35.

IRON AND NAILS—Pig Iron, no sales since 1st January, and prices nominal, \$32a\$40 per ton, Swedes \$107 50 per ton, English refined and Tredegar \$95, Common English \$80, American country \$85. Cut Nails 4½c., cash, 5c. time.

LIQUORS—Brandy, Otard, Dupuy & Co. \$3a5 per gal.; A. Seignette, \$2 25a\$4; Sazerac, \$3 25a\$4 50; Hennessy, \$3 95a\$5; Peach, scarce at \$1a\$1 25; Virginia Apple, 60c. a\$5c.; do. old, 75c.a\$1 50; Northern do, 55a75c.; Imitation, 45a47c. Rum, New England, 45c. Gin, Holland, \$1a \$1 50; American 45 cts.

LEAD—Pig 6½a6¾c., cash and time.

LARD—Prime Lard, in bbls. 10a10½c., in kegs, 11a11½c., in pails, 13c.

LEATHER—Good stamp 20a22c., per lb., damaged 18c., poor 15a17c., upper leather \$1 50a\$3, as in size, weight and quality, the latter price only for superior heavy sides. Skirting and harness Leather is more plenty with less demand. We quote 20 to 29c., as extremes, principally sales 22a26c.

LIME—\$1 25 in store, \$1 12½ from vessel, none in first hands.

MOLASSES—New Orleans 26a28c. per gallon. No Cuba and Porto Rico received yet.

OATS—Stock very light—sales at 65cts. per bush.

OFFAL—Bran, 20c. per bushel; shorts, 30c.; brown stuff, 40c.; shipstuff, 75c.

POTATOES—Stock on hand much diminished, and we quote \$1 75 per bushel.

PLASTER—Lump sells at \$4 75a\$5 on the wharf, ground \$9 per ton, calcined \$1 75 per bbl.

RYE—\$1 15 per bushel.

RICE—New 5a½ cts. per pound.

SALT—Liverpool line \$1 60 per sack from wharf.

SUGARS—Fair to strictly prime New Orleans 5a6½ cts., Porto Rico 5a6, Coffee Sugar 6½a7½, refined loaf 9½a9½, crushed and powdered 8½a9c.

SHOT—7a7½ cts. per lb.

TEAS—Imperial and Gunpowder 55c.a\$1 20.

TOBACCO—We quote Lugs at \$4 75a\$5 25 for inferior, good and fine \$5 75a\$6 25. Common Leaf \$7 50a\$8. Common 8 50a9. Good \$9 50a11 50.

WHEAT—Prime red \$2 15, do white \$2. Good qualities 5 cts. less, 5 cts. per bushel advance on these quotations on time.

WHISKEY—Richmond rectified 35a36 cts. Cincinnati 40c., 4 mos., nominal, none now in market.

WINES—Port, Burgundy \$1a\$2 50 per gallon; Port Juice, \$2 50a\$4; Madeira, Sicily 45c.a\$1 75; Old Madeira, \$2 50a\$4; Sherry, Permartin, Duff Gordon and Amontillado, \$2a\$4 50.

WOOD—Oak \$3 50 per cord, \$2a2 25 for Pine, retail \$4 50a\$5 for Oak, \$3a3 25 for Pine.

WOOL—Nominal holders generally above the views of buyers.

CATTLE, HOGS AND SHEEP.

BEEF—\$4 50, 5a5 50 per cwt. gross, which is \$9a10 and \$11 net. It is understood that there are English agents purchasing Beef in Virginia for packing for the army now invading Russia.

Hogs—\$7 per hundred, supply moderate.

SHEEP—Mutton sells for \$3a7 a piece for ordinary and superior Sheep.

Stocks—Va. 6 per cents, (34 years) no sales; Va. 6 per cents (25 years) \$98; State Coupons \$97½; Bonds guaranteed by the State, \$95; Richmond City Bonds, (34 years) \$97; Va. Bank stock 73; Farmer's Bank stock 103; Exchange Bank stock \$104; Richmond, Fredericksburg and Potomac Railroad stock, 95 dol.; Va. Central Rail Road stock 37½ dol.; Richmond and Petersburg Rail Road stock 45 dol.; Richmond and Danville Rail Road stock, 50 dol.; James River and Kanawha stock 13 dol.

PAYMENTS TO THE SOUTHERN PLANTER

To the 26th of March, 1865.

All persons who have made payments early enough to be entered, and whose names do not appear in the following receipt list, are requested to give immediate notice of their omission, in order that the correction may be made in the next issue:

A. Y. Kiter to January 1856	2 00
Col. J. H. Ferich to September 1855	1 00
T. T. Totty to January 1856	1 00
J. Overby to November 1855	1 00
A. Moseley to January 1856	1 00
W. Dupin to January 1856	1 00
Rev. S. G. Price to January 1856	1 00
G. S. Harper to January 1856	1 00
J. Elam to January 1856	1 00
H. W. Fowlkes to July 1855	1 50
Jno. Henley to July 1856	1 50
R. W. Anderson to March 1856	2 00
R. B. Hendrick to January 1856	1 00
N. P. Fitchett to January 1856	2 00
Capt. T. Hardin to January 1856	1 00
B. B. Keesee to January 1856	1 00
W. Parsons to January 1856	3 00
J. Robinson to January 1856	1 00
D. W. Waller to January 1856	1 00
Col. G. Baylor to July 1855	5 00
W. S. Payne to January 1856	1 00
R. H. Turner to January 1856	1 00
B. F. Manley to January 1856	1 00
S. H. Ginter to January 1856	1 00
J. W. Barker to January 1856	1 00
C. Meriwether to January 1856	1 00
C. F. Morton to January 1856	1 00
J. Wingfield to January 1856	1 00
J. F. Wingfield to January 1856	1 00
A. Aldridge to January 1856	1 00
Dr. P. Goodwyn to January 1856	1 00
Maj. J. R. Disoway to January 1866	1 00
Dr. B. F. Eppes to January 1856	1 00
Maj. T. J. Eppes to January 1856	1 00
B. R. Smith to January 1856	1 20
B. W. Bass to January 1856	2 00
W. A. Wright to January 1856	5 00
Coles H. T. Garnett to January 1856	5 00
S. Tunstall to January 1856	2 00
W. M. Keblinger to October 1855	1 00
J. S. Field to January 1856	2 00
R. H. Harwood to January 1856	1 00
T. H. Walthall to January 1856	1 00
Capt. W. H. Goodwyn balance	1 20
T. Walker to January 1856	1 00
Col. C. Coeke to September 1855	1 00
H. T. Kidd to January 1856	1 00
M. Wade to January 1856	1 00
Mrs. T. H. Hobson to September 1855	2 00
J. S. Barbour, jr., to March 1855	4 00
G. W. Whitfield to January 1856	1 00
Rev. D. Witt to January 1856	1 00
T. Clarke to January 1856	1 00
W. J. McGeehee to January 1856	1 00
J. D. Walthall to January 1856	1 00
J. M. Johns to January 1856	2 00
J. W. Allen to January 1856	3 00
J. R. Holliday to January 1856	1 00
J. W. Moseby to January 1856	1 00
W. P. Tucker to January 1856	1 00
W. A. Wilkins to January 1856	1 00
W. Griffin to January 1856	1 00
W. C. Tucker to January 1856	1 00

L. Plummer to January 1856	1 00	P. Sowell to September 1856	3 50
rs. C. G. Garland to January 1856	1 00	A. C. Hughes	1 00
ohn Moir to January 1856	8 00	Col. J. J. Bocock to July 1856	2 25
A. Hundley to January 1856	1 00	A. C. Wood to January 1856	1 00
T. G. Morton to January 1856	1 00	D. R. Goodman to September 1855	1 00
J. R. Woods to July 1855	2 00	S. C. Hurnly to January 1856	2 25
J. N. Hudson to April 1855	1 00	R. Dossey to September 1856	3 50
W. Price to January 1856	1 00	M. L. Anderson to July 1856	3 50
en. W. H. Richardson, to January 1856	1 00	J. Wood, jr., to July 1856	5 00
ho. Walker to January 1856	1 00	A. Carpenter to January 1856	2 25
ev. W. W. Kennedy to January 1856	2 00	J. B. Chandler to January 1856	1 00
C. Carrington to January 1856	1 00	Capt. F. Lang to July 1857	1 00
M. Radford to January 1857	2 00	Thos. E. Shannon July 1856	1 00
pt. W. Walden to January 1856	1 00	J. Riddick to July 1856	1 00
M. Kennedy to January 1856	1 00	F. W. Scott to January 1856	5 00
Gerst to May 1856	1 00	J. L. Armistead to January 1856	1 00
Friend to January 1856	1 00	Upton H. Herbert to March 1856	2 00
A. Bragg to January 1856	3 00	Jos. Spriggs to March 1856	1 00
Sutherland to July 1856	2 00	G. W. Turner to January 1856	1 00
D. Watkins to January 1856	1 00	J. R. Miller to January 1856	1 00
chie Brown to January 1856	1 00	G. Redman to July 1855	2 00
C. Roy to January 1856	2 00	H. E. Coleman, jr., to November 1856	2 00
o. Dunn to November 1855	1 00	R. B. Baptist to January 1860	5 00
hos. Branch to July 1856	3 00	Sand. Farrar to April 1855	1 00
L. Archer to January 1856	2 00	D. M. Carter to April 1855	1 00
W. Friend to April 1856	2 00	J. N. Ryland to January 1856	1 00
ol. J. A. Peterson to January 1856	3 00	J. C. Haley to January 1856	1 00
Boisseaux to January 1856	2 00	Col. J. Wootin to January 1856	9 00
B. Hamblin to January 1856	1 00	Dr. T. P. Shields to January 1856	1 00
Bott to January 1856	1 00	M. F. Finks to January 1856	1 00
R. Harrison to January 1856	1 00	R. N. Harris to January 1856	1 00
reen Hill to January 1856	2 00	C. H. Harrison to April 1856	1 00
J. Cabiness to September 1856	1 00	H. M. Baker to March 1856	1 00
O. Chambliss to April 1856	2 00	Dr. O. B. Finney to January 1856	1 00
Thweat, to September 1855	1 00	E. T. Mapp to January 1856	1 00
F. Jones to January 1856	3 50	S. H. Crenshaw to January 1856	1 00
H. Field to January 1856	2 00	W. E. Glen to January 1856	2 00
L. Lee to January 1856	1 00	J. B. Anderson to April 1855	1 00
P. H. Anderson to January 1856	1 00	R. Sampson to January 1855	2 50
F. Perkinson to January 1856	1 00	C. C. Snow to January 1856	1 00
R. Eppes to January 1856	2 00	W. D. Wallace to January 1856	3 50
H. Brooks to January 1856	3 50	J. E. Morris to January 1856	1 00
M. Jordan to January 1856	2 00	J. W. Mays to January 1856	1 00
Mitchell to January 1856	1 00	Dr. H. Curtis to January 1856	1 00
H. Fendley (Est.)	5 00	A. R. Stringer to July 1855	2 00
Hill to January 1856	1 00	W. O. Eubank to January 1857	1 00
T. Bibb to January 1856	2 00	E. T. Jeffries to January 1856	1 00
B. Harris to January 1856	1 00	J. W. Downey to March 1856	1 00
r. W. W. Oliver to January 1856	1 00	T. B. Montague to January 1856	1 00
J. C. Hill to January 1856	1 00	F. G. Bridges to January 1856	1 00
C. Land to January 1851	5 00	J. C. Dickenson to January 1856	1 00
F. McGehee to January 1856	1 00	D. Rice to January 1856	1 00
W. Spindle to January 1856	1 00	J. B. Bell to January 1856	1 00
P. Terrill to January 1856	1 00	L. Brugh to January 1856	1 00
B. Harris to September 1855	1 00	J. L. Ege to May 1855	2 00
r. W. H. Goodwyn to January 1856	1 00	J. Mann to January 1856	1 00
Chesher to May 1855	1 00	Capt. T. F. Spencer to January 1856	1 00
Hairston, Sen. to July 1853	1 00	P. H. Wilkerson to January 1856	1 00
ohn Walker to May 1856	1 00	J. W. Butler to Sept. 1855	1 00
B. Harrison to January 1856	2 00	H. M. Hutcheson to January 1856	1 00
W. Brockwell to January 1856	2 00	R. D. Warwick to January 1856	1 00
Brown to January 1856	1 00	W. Matthews to January 1856	1 00
H. Brown to April 1856	2 25	W. D. Matthews to January 1856	1 00
A. Earley to September 1856	2 25	L. D. Crenshaw to October 1856	1 00
B. Brown to July 1856	2 25	A. W. Cousins to January 1856	1 00
J. Thompson to January 1856	1 00	J. W. Butler to September 1855	1 00
J. Parrott to January 1856	2 25	P. Jones to September 1855	1 00
T. Barksdale to January 1857	6 00	M. T. Campbell to January 1856	1 00
P. Parish to January 1856	1 00	W. Snoddy to January 1855	2 00
W. Pecklin to July 1857	6 00	W. F. Blackwell to January 1856	2 00
J. Robinson to July 1856	2 50	Dr. J. L. Jones to January 1856	1 00
J. Cook to July 1857	6 00	T. J. Henshaw to January 1856	1 00
P. Parrish to July 1855	3 05	J. T. Anderson to January 1856	1 00

J. A. Harman to January 1856	2 09
T. Carrington to January 1856	1 00
Rev. A. B. Davidson to January 1855	1 00
E. H. Penchback to January 1856	3 00
M. Utz to January 1856	1 00
S. Redd to January 1857	5 00
R. A. White to January 1856	1 00
R. G. Morris to January 1856	1 00
H. Irwine to December 1859	5 00
R. B. Haxall to January 1856	3 00
L. H. B. Whitaker to January 1856	1 00
J. R. Saunders to January 1856	1 00
P. E. Seward to January 1856	1 00
S. G. Cooke to Sept. 1855	2 00
T. Minson to January 1856	1 00
K. P. Minson to January 1856	1 00
S. G. Curtis to January 1856	1 00
F. Yager to January 1856	1 00
E. Smith to March 1855	1 00
N. Mills to January 1856	1 00
R. Mills to January 1856	1 00
W. T. Young to April 1855	1 00
H. C. Logan to January 1856	1 00
Rev. E. W. Roach,	
Col. T. Pugh,	
Jackson & Williamson,	
A. Bailey,	
C. A. Anderson,	
Capt. J. W. Armistead,	
CLUE, to Jan. '56	
	9 00

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FIELD, GARDEN AND FLOWER SEEDS, AGRICULTURAL AND HORTICULTURAL IMPLEMENTS, &c.—The subscribers have established, in connection with their extensive Agricultural and Horticultural Implement Establishment in Philadelphia, a Seed Farm, for growing all kinds of seeds for Farm and Garden, which they are now able to supply, fresh and genuine, in every variety. Merchants and Dealers supplied at a liberal discount. A choice selection of rare Flower Seeds—20 fine varieties, neatly put up in fancy boxes, for one dollar. They are also prepared to supply, either by wholesale or retail, every description of Agricultural and Horticultural Implements, with all the recent improvements, being so agents in Philadelphia for many of the best ones now in the market, for which they received over seventy premiums at the last Pennsylvania State Fair. They have also for sale Red and White Clover, Timothy, Herd's Grass, Kentucky Blue Grass, Rye Grass, Orchard Grass, Alsike Clover, Lucerne, Sainfoin, Sweet Scented Vernal, Poxtail, Fescues, and other Foreign Grasses. Implement, Seed and Nursery Catalogues furnished on all post-paid applications.

PASCHALL MORRIS & CO.,
Agricultural Warehouse and Seed Store,
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REAPERS, AND REAPERS & MOWERS COMBINED.

HAVING been familiar with the manufacture and working of these now indispensable machines for the last fifteen years, I can with entire confidence recommend Hussey's, delivering behind or, with rear platform, at the side; and McCormick's, delivering always at the side, as embracing all that is valuable in reapers at the present day. All others are but variations of these, and have value only as they possess the true principles established in them. Out of eighty reapers which I sold last harvest, there were no failures.

Orders should be sent early to prevent disappointment. Terms of payment for machines delivered now will be the same as if delivered the first of June.

Premium Threshers and Threshers and Cleaners made to order; Stationary and Portable superior Wheat Fans always on hand, and a general assortment of implements.

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The Pitts Thresher, with separator and cleaner mounted on wheels, is the most reliable machine for threshing in remote fields on large farms; and as a portable machine, to thresh on toll, has advantages possessed by no other.

I make a great variety of Threshers, both stationary and portable, and pay particular attention to the repairs of threshers made by Jabez Parker and by Parker & Smith. Have for sale Hussey and McCormick Reapers, and do repairs to same.

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